रजिस्टर्ड नं० HP/13/SML/2001.

हिमाचल प्रदेश

# राजपत्र, हिमाचल प्रदेश

(असाधारण)

हिमाचल प्रदेश राज्य शासन द्वारा प्रकाशित

शिमला, मंगलवार, 4 दिसम्बर, 2001/13 अग्रहायण, 1923

हिमाचल प्रदेश सरकार

TARRIFF ORDER

2001-2002

*Shimla, the 29th October,* 2001

Determination

of

Annual Revenue Requirment,

Transmission & Bulk Supply Tariff

and

Distribution & Retail Supply Tariff

**BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION SHIMLA**

Petition No. 1/2001 & 2/2001.

**S. S. Gupta, Chairman**

In the matter of :

Filing of proposed Distribution and Retail Supply tariff (FTP)

&

Filing of proposed Transmission and Bulk Suppy Tariff (FTP)

And

**In the matter of :**

**Himachal Pradesh State Electricity Board** **Petitioner**

The following were present :

**Shimla 18-9-2001**

1. Shri Sh. Narinder Chauhan, Member (F & A), HPSEB Petitioner

| | | |
|---|---|---|
| 2. | Shri Pardeep Kumar Sood, Member (Operation), HPSEB | Petitioner |
| 3. | Sh. J. P. Gupta, C. E., HPSEB | -do- |
| 4. | Sh. N. L. Sharma, Secretary, HPSEB | -do- |
| 5. | Shri D. N. Bansal, Dy. C.E. HPSEB | -do- |
| 6. | Shri R. L. Verma, CAO, HPSEB | -do- |
| 7. | Shri D. K. Gupta, Addl. S.E., HPSEB | -do- |
| 8. | Shri B. S. Bakshi, Addl. S.E., HPSEB | -do- |
| 9. | Shri J. K. Gupta, AE, HPSEB | -do- |
| 10. | Shri R. S. Mehta, Sr. A.O., HPSEB | -do- |
| 11. | Shri Tara Dutt Sharma, HPSEB | -do- |
| 12. | Shri S. S. Kaushal, Genl. Secy. Shimla House Owners Association | Objector |
| 13. | Shri B. K. Batra, Shimla House Owners Association | -do- |
| 14. | Shri G.K. Nag. -do- | -do- |
| 15. | Shri Harpal Singh, ACC | -do- |
| 16. | Shri A.K. Mahajan, Sr. Mgr., ACC | -do- |
| 17. | Shri Vivek Chawala. Sr. Mgr., ACC | -do- |
| 18. | Shri Vineet, ACC | -do- |
| 19. | Shri Gurpreet Singh, ACC | Objector |
| 20. | Shri Umesh , PHD Chamber of Commerce & Industry | -do- |
| 21. | Shri Ankush Dass Sood, HP Federation of Cloth Merchant | -do- |
| 22. | Shri Manish Aggarwal, ICRA | Petitioner's Consultat |
| 23. | Shri Deepak Sharma, ICRA | -do- |
| 24. | Shri B. G. Joshi, ICRA | -do- |

**Shimla 19-9-2001 :**

| | | |
|---|---|---|
| 1. | Shri H. C. Thakur Member (Technical), HPSEB | Petitioner |
| 2. | Shri Narinder Chauhan, Member (F&A), HPSEB | -do- |
| 3. | Shri Pardeep Kumar Sood, Member (op), HPSEB | -do- |
| 4. | Shri J. P. Gupta, C. E. (Comm., HPSEB) | -do- |
| 5. | Shri D. N. Bansal, Dy. C. E. HPSEB | -do- |
| 6. | Shri R. L. Verma, CAO, HPSEB | -do- |
| 7. | Shri D. K. Gupta, Addl. S.E. HPSEB | -do- |
| 8. | Shri B. S. Bakshi, Addl. S.E. HPSEB | -do- |
| 9. | Shri S. R. Mehta, Sr. A.O. HPSEB | -do- |
| 10. | Shri Tara Dutt Sharma, HPSEB | -do- |
| 11. | Shri A. K. Mittal , GACL | -do- |
| 12. | Shri S. Sood, GACL | -do- |
| 13. | Shri K. S. Bisht GACL | -do- |
| 14. | Shri H. M. Moudgil HPSEDC | -do- |
| 15. | Shri S. S. Kaushal, Gram Kalyan Smiti | -do- |
| 16. | Shri R. S. Chandel, Advocate | -do- |
| 17. | Shri Manish Aggarwal, ICRA | Petitioner's Consultant |
| 18. | Shri Deepak Sharma, ICRA | -do- |

**Shimla 20-9-2001 :**

| | | |
|---|---|---|
| 1. | Shri Narinder Chauhan, Member (F & A), HSPEB | Petitioner |
| 2. | Shri Pardeep Kumar Sood, Member (Operation , HPSEB | -do- |
| 3. | Shri J. P. Gupta, C. E. (Comm. , HPSEB | -do- |
| 4. | Shri D. N. Bansal, Dy. C. E., HPSEB | -do- |
| 5. | Shri R L. Verma, CAO, HPSEB | -do- |
| 6. | Shri D.K. Gupta, Addl. S.E., HPSEB | -do- |
| 7. | Shri B. S. Bakshi, Addl. S.E. HPSEB | -do- |
| 8. | Shri S. R. Mehta, Sr. A. O. HPSEB | -do- |
| 9. | Shri R. K. Gupta, Sr. Citizens Forum | Objector |

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| 10. | Shri R. C. Katyar, Sr. Citizens Forum | Objector |
| 11. | Shri Verma, Genl. Secretary, Engine Ghar Welfare Society | -do- |
| 12. | Shri J. C. Chauhan, Add. Secretary (Power). H. P. Govt. | Govt. Spokesman |
| 13. | Shri Manish Aggarwal, ICRA | Petitioner's Consultant |
| 14. | Shri Deepak Sharma, ICRA | -do- |

**Parwanoo 21-9-2001 :**

| | | |
|---|---|---|
| 1. | Shri Pardeep Kumar Sood, Member (Operation) HPSEB | Petitioner |
| 2. | Shri S. N. Kapoor, C. E. (Operation) South, HPSEB | -do- |
| 3. | Shri J. P. Gupta, C. E. (Commercial) HPSEB | -do- |
| 4. | Shri D. N. Bansal, Dy. C. E., (Commercial) HPSEB | -do- |
| 5. | Shri R. L. Verma, CAO, HPSEB. | -do- |
| 6. | Shri R. C. Katna, S. E., HPSEB | -do- |
| 7. | Shri D. K. Gupta, Addl. S.E., HPSEB | -do- |
| 8. | Shri B. S. Bakshi, Addl. S.E., HPSEB | -do- |
| 9. | Shri S. R. Mehta, Sr. A.O. HPSEB | -do- |
| 10. | Shri S. D. Rattan, XEN, HPSEB | -do- |
| 11. | Shri Suresh Thakur, SDO., HPSEB | -do- |
| 12. | Shri Anil Satyal, Parwanoo, Industries Association | Objector |
| 13. | Shri Rakesh Bansal, Parwanoo, Industries Assocation | -do- |
| 14. | Shri Sudhir K. Gularia, Office Secy. -do- | -do- |
| 15. | Shri K. S. Barar, Cosmo Ltd. | -do- |
| 16. | Shri P. K. Dhiman, Purolator | -do- |
| 17. | Shri Ankish Vashist., -do- | -do- |
| 18. | Shri Alok Sharma, Sr. Vice President, Parwanoo Ind. Association | -do- |
| 19. | Shri Sanjeev Bhallia GPIL, Nalagarh | -do- |
| 20. | Shri B. S. Guleria -do | -do- |
| 21. | Shri A. Chopra -do- | -do- |
| 22. | Shri Sachit Jain, Chairman, CII | -do- |
| 23. | Shri S. K. Patiyal, CII | -do- |
| 24. | Shri Arun Rawat, Laghu Udyog Bharti | -do- |
| 25. | Shri Amir Singh, -do- | -do- |
| 26. | Shri Mahesh Bhashin -do- | -do- |
| 27. | Shri S. S. Bharmoria -do- | -do- |
| 28. | Shri S. R. Verma, Director, Plato Polymar Ltd. | -do- |
| 29. | Shri Sudhir Gupta, Advocate for M/s-BPL, DPP, PPL, HPI, HPL & M/s KIL | -do- |
| 30. | Shri Deepak Badhani, Sr. Vice President, BBMB Association. | -do- |
| 31. | Shri Vijay Arora, Vice President Arvind Spinning Mills | -do- |
| 32. | Shri Manish Aggarwal ICRA | Petitioner's Consultant |
| 33. | Shri Deepak Sharma, ICRA | -do- |

**Nahan 22-9-2001 :**

| | | |
|---|---|---|
| 1. | Er. J. P. Gupta, C. E. (Comm.), HPSEB | Petitioner |
| 2. | Shri S. C. Chakarvorti, Dy. C. E., HPSEB | -do- |
| 3. | Shri S. R. Mehta, Sr. A. O. HPSEB | -do- |
| 4. | Shri C. P. S. Chauhan, Addl. S. E., HPSEB | -do- |
| 5. | Er. D. N. Bansal, Dy. C. E., HPSEB | -do- |
| 6. | Shri B. S. Goel, Addl. S. E., HPSEB | -do- |
| 7. | Shri H. S. Tomar, A. E. E., HPSEB | -do- |
| 8. | Shri S. C. Gautam, A. E. E., HPSEB | -do- |
| 9. | Shri S. C. Rana, A. E. E. HPSEB | -do- |

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| 10. | Shri S. C. Gupta, Kala Amb Chamber of Commerce and Indusrty | Objector |
| 11. | Shri Anupam Batra -do- | -do- |
| 12. | Shri Umesh Garg -do- | -do- |
| 13. | Shri Sushil Jaswal -do- | -do- |
| 14. | Shri G. K. Sardana -do- | -do- |
| 15. | Shri Sushil Kumar -do- | -do- |
| 16. | Shri R. Guloti -do- | -do- |
| 17. | Shri J. N. Singh, Ruchira Paper | -do- |
| 18. | Shri G. R. Khairdilk, Kala Amb Inds. | -do- |
| 19. | Shri Brijesh Kohli, Umesh Ind. Entp. | -do- |
| 20. | Shri Vishal Mehta, Advocate -do- | -do- |
| 21. | Shri Suresh Garg, Himachsl Chamber of Commerce & Industry | -do- |
| 22. | Shri S. K. Garg, M/s Vishist Alloys | -do- |
| 23. | Shri D. S. Thakur, DPRO, Sirmaur | Media |
| 24. | Shri Alok Nigam, ICRA | Petitioner's Consultant |
| 25. | Shri Deepak Sharma -do- | -do- |

**Paonta Sahib 24-9-2001 :**

| | | |
|---|---|---|
| 1. | Er. J. P. Gupta, C. E., HPSEB | Petitioner |
| 2. | Er. S. C. Prabhakar, Dy. C. E. HPSEB | -do- |
| 3. | Er. D. N. Bansal, Dy. C. E. HPSEB | -do- |
| 4. | Shri S. R. Mehta, A. O., HPSEB | -do- |
| 5. | Shri C. P, S. Chauhan, Addl. S. E., HPSEB | -do- |
| 6. | Shri S. K. Goel, EE, HPSEB | -do- |
| 7. | Shri O. P. Sharma, A. E., HPSEB | -do- |
| 8. | Shri N. K, Saini, A. E. E. HPSEB | -do- |
| 9. | Shri Umesh Garg, Ruchira Papers | Objector |
| 10. | Shri C. S. Gupta, Kala Amb Chamber | -do- |
| 11. | Shri T.S. Shah, Advocate for Kishan Shabha | -do- |
| 12. | Shri K. S. Chauhan, Advocate for M/s Vyopar Mandal | -do- |
| 13. | Shri Arun Goel Advocate | -do- |
| 14. | Shri Suresh Garg, Genl. Secretary, Himachal Chamber of Commerce and Industry | -do- |
| 15. | Shri R. S. Kaushal, M. D. Line Chemical Ltd. | -do- |
| 16. | Shri A. K. Revail, Advocate for M/s Himachal Chamber of Commerce & Industries | -do- |
| 17. | Shri Bhushan Guloti, President, L-1 Consumer Forum | -do- |
| 18. | Shri J . K. Kapoor, Himachal Special Steel | -do- |
| 19. | Shri Sanjeev Kapoor, -do- | -do- |
| 20. | Shri Madan Lal Khurana, Veopar Mandal | -do- |
| 21. | Shri Satish Kumar Goel, Nagrik Kalyan Samiti | -do- |
| 22. | Shri Amitabh Sharma, HP Chamber of Commerce and Industry | -do- |
| 23. | Shri Arun Sharma -do- | -do- |
| 24. | Shri Alok Nigam, ICRA | Petitioner's Consultant |
| 25. | Shri Deepak Sharma -do- | -do- |

**Dharamshala 26-9-2001 :**

| | | |
|---|---|---|
| 1. | Shri P. K. Sood . Member (OP), HPSEB | Petitioner |
| 2. | Er. J. P. Gupta, C.E., HPSEB | -do- |
| 3. | Shri S. K. Gupta, C.E., HPSEB | -do- |
| 4. | Er. D. N. Bansal, Dy. C.E., HPSEB | -do- |
| 5. | Shri T. R. Sharma, Dy. C.E., HPSEB | -do- |
| 6. | Shri S. K. Sood, Dy. C.E., HPSEB | -do- |

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| 7. | Shri M. S. Rajat, Dy. C. E., HPSEB | Petitioner |
| 8, | Shri S. R. Mehta, Sr. A. E. HPSEB | -do- |
| 9. | Shri A. K. Gupta, S. E. (W) HPSEB | -do- |
| 10. | Er. S. K. Choudhary. Addi. S E. HPSEB | -do- |
| 11. | Shri H. S. Thakur, Addl. S. E., HPSEB | -do- |
| 12. | Shri B. L. Dogra, Sr. XEN, HPSEB | -do- |
| 13. | Shri S. C. Shárma, XEN, HPSEB | -do- |
| 14. | Er. R. S. Rana, Sr. XEN, HPSEB | -do- |
| 15. | Er. K. K. Kuthiala, XEN, HPSEB | -do- |
| 16. | Shri Sunil Mahajan, A. E. E. HPSBEB | -do- |
| 17. | Kanwar M. P. Singh, Jan Chetna | Consumer's representative |
| 18. | Lt. Col. Shakti Chand (Retd.) President, National Consumer Awareness Group | Objector |
| 19. | Shri B. N. Kashap, Distt . Ind. Asson. | -do- |
| 20. | Chatarbhuj Mittal -do- | -do- |
| 21. | Shri Rakesh Mahajan, Partap Wires Ltd. | -do- |
| 22. | Shri Subhash Mahajan, Small Ind. Asson. | -do- |
| 23. | Shri Ashwani Kumar, TCM Steel Inds. | -do- |
| 24. | Shri Parveen Mahajan | -do- |
| 25. | Shri Dev Dass Saini, M/s Brij Son | -do- |
| 26. | Shri B. B. Aggarwal, Small Inds. Assocn. | -do- |
| 27. | Shri Saran Dass Sharma, National Consumer Awareness Group | -do- |
| 28. | Shri Vikramjit Sharma, Advocate, Distt. Ind. Assocn. | -do- |
| 29. | Shri Suresh Aggarwal, Hotel Association | -do- |
| 30. | Shri Jagpal Aggarwal -do- | -do- |
| 31. | Shri Amit Sood -do- | -do- |
| 32. | Shri S. K. Sood, DPRO, Dharamshala | Media |
| 33. | Shri Ram Verma, APRO, Dharamshala | -do |
| 34. | Shri H. Anand Sharma, Correspondent Amar Ujala | -do- |
| 35. | Shri Alok Nigam, ICRA | Petitioner's Consultant |
| 36. | Shri Deepak Sharma -do- | -do- |

## ORDER

(To come into force with effect from November 1, 2001)

## 1. PRELIMINARY

### 1.1 Constitution of the Commission :

Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as HPERC or the Commission) was established by the Government of Himachal Pradesh through a Notification on December 30, 2000 under Section 17 of the Electricity Regulatory Commissions Act, 1998 (14 of 1998) (hereinafter referred to as the ERC Act).

### 1.2 Functions of the Commission :

The Commission is a single member regulatory authority assisted by technical and administrative staff. The Commission's role is to regulate the working of the electricity industry in the State of Himachal Pradesh. The Commission has been assigned the following mandatory functions under Section 22(1) of the ERC Act.

(*i*) To determine the tariff for electricity wholesale, bulk, grid or retail, as the case may be.

(ii) To determine the tariff payable for the use of the transmission facilities.

(iii) To regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale distribution and supply in the state .

(iv) To promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act

**1.3 Determination of Tariff by the state Commission :**

The Commission is guided by Section 29 of the ERC Act, which enunciates the principles to be followed for the determination of tariff. It reads as follows :

(1) Notwithstanding anything contained in any other law, the tariff for intra State transmission of electricity and the tariff for supply of electricity, grid, wholesale, bulk or retail, as the case may be, in a State (hereinafteer referred to as the tariff), shall be subject to the provisions of this Act and the tariff shall be determined by the State Commission of that State in accordance with the provisions of this Act.

(2) The State Commission shall determine by regulations the terms and conditions for the fixation of tariff, and in doing so, shall be guided by the following, namely :—

(a) The principles and their applications provided in Sections 46, 57 and 57-A of the Electricity (Supply) Act, 1948 (54 of 1948) and the Schedule VI thereto;

(b) In the case of the Board or its successor entities, the principles under Section 59 of the Electricity (Supply) Act, 1948 (54 of 1948);

(c) That the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency;

(d) The factors which would encourage efficiency, economical use of the resources, good performance, optimum investments, and other matters which the State Commission considers appropriate for the purpose of this Act;

(e) The interests of the consumer are safeguarded and at the same time the consumers pay for the use of electricity in a reasonable manner based on the average cost of supply of energy :

(f) The electricity generation, transmission, distribution and supply are conducted on commercial principles :

(g) National power plans formulated by the Central Government.

(3) The State Commission, while determining the tariff under this Act, shall not show undue preference to any consumer of electricity , but may differentiate according to consumer's load factor, power factor, total consumption of energy during any period or the time at which the supply is required or the geograraphical position of any area, the nature of supply and the purpose for which the supply is required.

(4) The holder of each license and other persons including the Board or its successor body authorized to transmit, sell, distribute or supply electricity wholesale, bulk or retail, in the State shall observe the methodologies and procedures specified by the State Commission from time to time in calculating the expected revenue from charges which he is permitted to recover and in determining tariffs to collect those revenues.

(5) If the state Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determind by State Commission under this section, the state Government shall pay the amount to compensate the person affected by the grant of subsidy in the manner the state commission may direct, as a condition for the licence or any other person concerned to implement the subsidy provided for by the State Government.

(6) Notwithstanding anything contained in section 57-A and 27-B of the Electricity (Supply) Act, no rating committee shall be constituted after the date of commencement of this Act and the commission shall secure that the licenses compy with the provisions of their license regarding the charges for the sale of electricity both wholesale and retail and for conection and use for their assets or systems in acordance with the provisions of this Act.

**1.4 Regulations/Guidelines/Orders issued by the Commission :**

Since its inception, the Commission has so far issued the following Regulations/Guidelines/Orders that provide the institutional and legal framework for regulation of the Electricity Sector in the State :

**(i) Guidelines for Revenue and Tariff filing (February 23, 2001):**

These guidelines, issued under Section 29(4) of the ERC Act, prescribe the methodologies and procedures to be followed by a utility for calculating its revenue requirement and the Expected revenue from the current and proposed charges. The guidelines, *inter alia*, also require the utility to set standards and benchmarks for the supply of electricity to improve its services, including maximum time or response to important aspects of service so that the rationalization of energy prices is done at the internationally acceptable norms of efficiency.

**(ii) Guidelines for Functioning of State Advisory Committee (February 28, 2001) :**

These guidelines, issued under Section 24 and Section 25 of the ERC Act, lay down the procedure for the selection and appointment of the Advisory Committee Members, term of office of the Members and the conduct of proceedings of the Committee.

**(iii) Appointment of Consultants Regulations, 2001 (February 28, 2001) :**

These Regulations, issued under Section 58(2)(*c*) of the ERC Act, specify the procedure to be followed for the appointment of Consultants and the remuneration payable to them.

**(iv) Conduct of Business Regulations, 2001 (April 23, 2001) :**

These regulations, issued under Section 58 of the ERC Act, set out the legal and administrative framework within which the Commission will conduct its work and proceedings.

**(v) Management and development of Human Resources (Draft Regulations), 2001 (July 11, 2001):**

These Regulations framed under section 21 (2) &(3) of the ERC Act, determine the number, nature and categories of officers and staff required to assist the Commission in the discharge of its duties together with their service conditions. These are currently under the consideration of the Government.

**(vi) Draft Guidelines for Power Purchase Agreements (PPA) upto 5 MW (July 11, 2001) :**

These guidelines, issued under Section 22(1)(*c*) of the ERC Act, refer to the main issues to be covered in the preparation of PPAs of mini/micro hydro power plants up to 5 MW and the maner of submission of the PPAs by the parties concerned for the approval of the Commission. The Commission has also directed the Board to prepare a model PPA and submit the same to the Commission for approval to enable it to issue the final guidelines.

**(vii) Concept paper on Retail Supply Tariff (Draft) (July, 31 2001) :**

The Concept Paper issued by the Commission discuses the objectives of tariff setting, tariff principles, methodologies, and key issues involved in determining the retail electricity tariff in Himachal Pradesh.

**(viii) Accounting (Draft) Regulations 2001 (August 7, 2001) :**

The accounting regulations, framed under Section 58(2) (*e*) of the ERC Act, set out the methodology and the procedures to be followed for the preparation and admnistration of budget, finance, accounts and audit of the Commission. These are also currently under the consideration of the State Government.

**(ix) Guidelines for Load Forecast, Resource Planning and Power Procurement (August 3, 2001) :**

These guidelines, issued under Section 22(1)(*c*) of the ERC Act, provide for the preparation and approval of load forecasts and power procurement processes of the utility.

**(x) Grid, Supply and Distribution Codes :**

The Commission *vide* orders dated May 3, 2001, issued under Section 22(1) (*d*) of the ERC Act directed the Board to submit the following codes for approval to the Commission within three months of the date of order;

(*i*) Himachal Pradesh Electricity Grid Code (HPEGC)
(*ii*) Himachal Pradesh Electricity Distribution Code (HPEDC)
(*iii*) Himachal Pradesh Electricity Supply Code (HPESC)

**1.5 State Advisory Committee :**

The Commission, in exercise of the powers conferred upon it under Sections 24 and 25 of the ERC Act, constituted a State Advisory Committee consisting of sixteen members. the Members of the State Advisory Committee were selected to represent the interests of industry, commerce, labour, agriculture, academic and research bodies and non-governmental organisations in the energy sector. The objectives of this Committee are to advise the Commission on the following :—

(*i*) major questions of policy, relating to electrical industry in Himachal Pradesh ;
(*ii*) matters relating to quality, continuity and extent of service provided by the licensees ;
(*iii*) compliance by licencees with the conditions and requirements of thier licence ;
(*iv*) protection of consumer interests ;
(*v*) energy supply and overall economic and efficiency standards of performance by utilities ; and
(*vi*) matters which the Commission specifically refers to the Committee.

The first meeting of the State Advisory Committee (SAC) was held at Shimla on August 17,2001 and the agenda, *inter alia*, included discussion on various policy issues including the tariff petition filed by the HPSEB, Power Purchase Agreements, proposed Electricity Grid Code, Electricity Distribution and Supply Codes, protection of consumer interests and overall Standards of Performance of the HPSEB. A brief recap of the views and suggestions of the members of the SAC on the tariff petitions filed by the Board is given in Chapter 3 of this Order.

**1.6 Appointment of persons to represent interests of consumesr before the State Commission :**

As required under Section 26 of the ERC Act, 1998, the Commission appointed the following persons to represent the interests of consumers in all the proceedings before the Commission relating to the two tariff petitions :

(*i*) Chairman CII, H.P. State Council, Chandigarh.
(*ii*) Prof. R. K. Gupta, Shimla.
(*iii*) Kanwar M. P. Singh, Dharamshala.

**1.7 Tariff Filing by HPSEB :**

(*i*) Himachal Pradesh State Electricity Board (hereinafter referred to as HPSEB or the Board) is a State Electricity Board constituted under Section 5 of the Electricity (Supply) Act, 1948 [hereinafter referred to as E (S) Act] It is a vertically integrated utility with the functions of generation, transmission and distribution of electricity.

(*ii*) HPSEB filed the petition for determining its Annual Revenue Requirement and the Distribution and Retail Supply tariff for the FY 2001-02on April, 30, 2001, underthe provisions of Section 22 of the ERC Act.

(*iii*) Following the scrutiny of the tariff petition filed by the Board, the Commission noticed a number of gaps and inconsistencies in the petition. Separate petition had not been made for the transmission and bulk supply tariff as required under section 1.2(2) of the guidelines for revenue and tariff filing nor the data furnished separately for the three businesses of generation, transmission and distribution. The Commission accordingly directed the Board to do the needful *vide* letter HPERC /Secy./151/DM/VS/393/dated May, 5,2001.

(*iv*) The Board prayed for the grant of waiver for the filing of a separate transmission and bulk supply petition *vide* letter No. HPSEB/C.E. (Commercial)/SERC/2001-2357, dated June 8, 2001, on the plea that separate accounts for generation, transmission and distribution were not being maintained by it. The Commission dismissed this prayer *vide* order No. HPIRC/Secy/031/NKV-601, dated June, 14, 2001, on the ground that the petition for distribution and retail supply tariff without the petition for transmission and bulk supply tariff (or at least separate data thereof) was meaningless since the determination of distribution and retail supply tariff on rational basis was just not possible without proper correlation of the cost of generation, transmission and distribution.

(*v*) The Board on June, 22,2001, sought an extention upto March 31, 2002, for the submission of separate transmission and bulk supply tariff petition. The Commission, while rejecting the application for extension upto March, 31, 2002, ordered the Board on June 25, 2001, to submit a separate petition by August, 14, 2001. The Board complied with the direction of the Commission and submitted the transmission and bulk supply tariff petition on August 14, 2001.

(*vi*) The Commission directed the Board, *vide* letter No. HPERC/Secy./151/DM/VS/393, dated May 5, 2001, to submit the proposal for standards and benchmarks in accordance with section 3.2of the guidelines for revenueand tariff filing. The Board complied with the above orders by submitting the proposal *vide* letter No. HPSEB/C.E. (Commercial)/SERC 2001-5245, dated August 20, 2001.

**1.8 MOU with GOI for Power Reforms in the State :**

A Memorandum of understanding was signed between the Ministry of Power, Government of India and the Government of Himachal Pardesh in March 2001, to affirm the

joint commitment of the two parties to reform the power sector in the State and to set out the reform measures which the State Government of Himachal Pradesh will implement and the support that the Government of India will provide.

These measures, *interalia*, include the following :

(*i*) All efforts will be made to provide electronic meters on all 11 KV distribution feeders and LT side of distribution transformers by March 2002.

(*ii*) Electronic meters will be provided to all consumers with 20 KW and above load during FY 2002-03.

(*iii*) Transmission and distribution losses which are presently at the level of approximately 25% will be reduced by 1% per year from FY 2002-03 subject to reduction of 5% in five years.

(*iv*) HPSEB will maintain grid discipline, comply with Indian Electricity Grid Code and carry out the directions of Regional Load Dispatch Centre.

The commitments made by the GoHP/HPSEB as per this MOU have been taken into consideration by the Commission while issuing the tariff order.

**1.9 Transparency and Simplification** :

(*i*) Section 37 of the Electricity Regulatory Commissions Act, 1998, requires that the Commission shall ensure transparency while exercising its powers and discharging their functions.

(*ii*) Complicated, difficult, ambiguous, arbitrary and *ad hoc* procedures and systems, availability of too much discretion and lack of transparency in the working, more often than not, are used to harass the common man. Right from its inception "total transparency" has been the raison d'etre of the HPERC. The Commission has taken pains to ensure that the Commission not only a observes total transparency in its own working and is seen by others to be doing so, but also a ensure that reasonable transparency is also observed in letter and. spirit by the Board while complying with the orders/ directives of the Commission. Chapter II of the Conduct of Business Regulations of the Commission aims at complete transparency, administration of the principles of natural justice and public hearings etc. Right to information has been enshrined in all the actions and proceedings of the Commission and should be so observed by the Board as well while rendering service to the consumers.

(*iii*) While issuing various orders and directives in the matter of current tariff petitions No. 1/2001-Retail Supply Tariff and No. 2/2001-Bulk Supply and Transmission Tariff", the Commission has not only observed complete transparency but also simplified and rationalized the tariff structure together with its associated appendages and linkages so as to ensure similar transparency in the implementation of these decisions by the Board.

(*iv*) The major irritants and sources of mal-practices , corruption and harassment of the consumers can be enumerated as :

(*a*) Connected load ;
(*b*) Monthly minimum charges based upon connected load ;
(*c*) Multiplicity of slabs within the same tariff class ;
(*d*) Significant differential between slabs within the tariff for a particular consumer class and between tariffs for different consumer classes ;
(*e*) Levy of peak load violation charges perceived to be unjust and unfair ;

(*f*) Advance Consumption Deposit (ACD) for industry linked with the number of shifts;
(*g*) Improper classification of consumers disregarding the type of use of energy; and
(*h*) Too much discretion and resultant scope for manipulation.

The Commission has in this order addressed these concerns by simplification and rationalisation of the tariffs.

## 2. SUMMARY OF PROPOSALS

**2.1** The proposals of the Board for determination of Annual Revenue Requirement (ARR) as well as Transmission and Bulk Supply Tariff and the Retail Supply Tariff are summarized below. Both the proposals are taken up together since they are inextricably linked and have been dealt with as such by the Commission in this order.

**2.2 Sales Projections** :

(*i*) HPSEB had initially projected sale of 3379 MU for the FY 2001-02 inclusive of 2607 MU within the state and 772 MU outside the State. This projection was made on the basis of past trends and anticipated growth. The sales estimate was subsequently scaled down to 3158 MU which included 2380 MU within and 778 MU outside the state. The downward revision was done by extrapolation of actual recorded consumption during the first few months of the FY 2001-02.

(*ii*) The sales between different customer classes within the state as per the subsequent projection of 2380 MU are tabulated below:—

Table 2.1 : Consumer category-wise sales (MU) for FY 2001-02

| Sl. No. | Consumer category | Sales | Share |
|---|---|---|---|
| | | (MU) | (%) |
| 1. | Domestic | 693 | 29.1 |
| 2. | Non-Residential | 172 | 7.2 |
| 3. | Small Industrial Power | 59 | 2.5 |
| 4. | Medium Industrial Power | 127 | 5.3 |
| 5. | Large Industrial Power (LS-1) | 109 | 4.6 |
| 6. | Large Industrial Power (LS-2) | 871 | 36.6 |
| 7. | Public water & Irrigation services | 216 | 9.1 |
| 8. | Agricultural Pumping | 21 | 0.9 |
| 9. | Street Lighting | 9 | 0.4 |
| 10. | Bulk | 103 | 4.3 |
| | Total .. | 2380 | 100.0 |

(*iii*) Based on the above gross sales of 3158 MU (2380 MU+778 MU) the Board has projected total energy requirement of 3897 MU including T & D loss of 739 MU.

(*iv*) Overall transmission and distribution loss, including the export outside the State calculated on the basis of the above projections of sales and energy requirement by the Board works out to 18.96%. The T & D loss on sales of 2380 MU within the State and corresponding energy requirement of, excluding the export outside the State, 3111 MU works out to 23.50%.

**2.3 Gross Generation :**

Gross generation from Board's own power stations has been projected at 1336 MU. It is stated that the projection has been made on the basis of past trends. The estimates are given in the table below :—

Table 2.2.—Generation from power stations within the State (MU) for FY 2001-02

| Sl. No. | Power station | Installed capacity (MW) | Gross generation (MU) |
|---|---|---|---|
| 1. | Bhaba | 120.0 | 546 |
| 2. | Bassi | 60.0 | 273 |
| 3. | Giri | 60.0 | 212 |
| 4. | Andhra | 16.95 | 61 |
| 5. | Baner | 12.0 | 41 |
| 6. | Gaj | 10.5 | 42 |
| 7. | Binwa | 6.0 | 28 |
| 8. | Thirot | 4.5 | 10 |
| 9. | Ghanvi | 22.5 | 79 |
| 10. | Gumma | 3.0 | 15 |
| 11. | Nogli | 2.5 | — |
| 12. | Rongtong | 2.0 | — |
| 13. | Sal-II | 2.0 | — |
| 14. | Chaba | 1.75 | 20 |
| 15. | Rukti | 1.5 | — |
| 16. | Chamba | 0.45 | — |
| 17. | Killar | 0.30 | — |
| 18. | Billing | 0.20 | Marginal |
| 19. | Shansha | 0.20 | Marginal |
| 20. | Bharmaur | 0.02 | Marginal |
| 21. | Holi | 3.0 | 8 |
| 22. | Bhaba Augmentation | 3.0 | 1 |
| 23. | Gross generation | | 1336 |
| 24. | Auxiliary Consumption | | 6 |
| 25. | Net Generation | | 1330 |

**2.4 Power Purchase :**

Power purchase requirement of 2654 MU projected by the Board from different sourcs together with the corresponding rate and cost of power purchase is given in table 2.3 below. The Board has stated that the projections have been made on the basis of share of HPSEB and the past purchase and price trends. In respect of projects from which Government is entitled to 12% free power, the arrangement currently between the Government of Himachal Pradesh and the HPSEB is that the Board will pay to the Government a rate equal to the lowest domestic tariff applicable for the corresponding year. The price to be paid in respect of such power to GoHP has thus been assumed by the Board to be Rs. 1.25 per kWh on the basis of proposed tariff for minimum domestic slab.

TABLE 2.3 : Power purchase from stations outside the State (MU) for FY 2001-02

| Sl. No. 1 | Station 2 | Purchase (MU) 3 | Rate (Rs./kWh) 4 | Total Cost (Rs. Crore) 5 |
|---|---|---|---|---|
| 1. | BBMB : | | | |
| | (a) Old HP | 44 | 0.25 | 1.10 |
| | (b) New HP | 142 | 0.0 | 0.00 |
| | (c) BSL | — | — | — |
| | (d) Dehar | 79 | 0.28 | 2.21 |
| 2. | NHPC : | | | |
| | (a) Baira Suil : | | | |
| | (i) At cost | — | — | — |
| | (ii) Free power | 94 | 0.12 | 1.13 |
| | (iii) Chamera Cons. | — | — | — |
| | (b) Chamera-I : | | | |
| | (i) Fee power | 258 | 0.12 | 3.10 |
| | (ii) Purchase | — | — | — |
| | (c) Salal-II | 33 | 0.60 | 1.98 |
| | (d) Uri | 50 | 3.80 | 19.00 |
| | (e) Tanakpur | 14 | 1.64 | 2.30 |
| 3. | PSEB : | | | |
| | (a) Shanan Share | 53 | 0.65 | 3.44 |
| | (b) Thein (Free power) | 70 | 0.11 | 0.77 |
| | (c) Purchase | — | — | — |
| 4. | UPSEB : | | | |
| | (a) Share | 480 | 0.35 | 16.8 |
| | (b) Purchase | — | — | — |
| 5. | HVPN : | | | |
| 6. | Rihand-I | 288 | 1.55 | 44.64 |
| 7. | Singrauli | — | — | — |
| 8. | Unchahar-I | 49 | 1.97 | 9.65 |
| 9. | Unchahar-II | 72 | 2.11 | 15.19 |
| 10. | Anta-I | 122 | 1.52 | 18.54 |
| 11. | Auriya-I | 200 | 1.90 | 38.00 |
| 12. | Narora | 80 | 2.45 | 19.60 |
| 13. | Western Grid | — | — | — |
| 14. | Dadri Gas | 180 | 1.65 | 29.7 |
| 15. | Dadri thermal | — | — | — |
| 16. | DVB | — | — | — |
| 17. | RSEB | — | — | — |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 18. | RAPP | — | — | — |
| 19. | J & K | — | — | — |
| 20. | Malana (Free Power) | 32 | 0.00 | 0.00 |
| 21. | Baspa-II | — | — | — |
| 22. | Thermal/Grid | 314 | 2.47 | 77.56 |
| 23. | PGCIL | — | — | — |
| | Free power cost payable to GOHP | 454* | 1.25 | 56.75 |
| | Total : | 2654 | | 361.46 |

**These 454 MU have been accounted for against Baira Suil, Chamera I, Thein and Malana power projects.*

**2.5 Cost of Generation, Transmission and Distribution :**

(*i*) The costs of generation, transmission and distribution businesses as projected by the Board are presented in the table below. The basis for arriving at these costs is explained in the subsequent paragraphs.

Table 2.4 ; Cost of generation, transmission and distribution businesses for FY 2001-02

| Head | Gen. Cost | Trans. Cost | Dist. Cost | Total |
|---|---|---|---|---|
| | (Rs. Cr.) | (Rs. Cr.) | Rs. Cr. | (Rs. Crs.) |
| Repair & Maintenance | 9.50 | 3.39 | 8.77 | 21.66 |
| Employee Cost | 25.37 | 15.48 | 343.72 | 384.57 |
| Adm. & Gen. Expenses | 1.08 | 0.66 | 14.56 | 16.30 |
| Depreciation | 11.64 | 6.38 | 13.99 | 32.01 |
| Interest and finance charges | 48.98 | 26.23 | 57.28 | 132.49 |
| Miscellaneous | 0.30 | 0.20 | 0.50 | 1.00 |
| Sub-Total (A) .. | 96.87 | 52.34 | 438.82 | 588.03 |
| Return on Net Fixed Assets (RONA) | | | | |
| Gross Assets at the beginning of the year | 669.08 | 335.43 | 278.60 | 1283.11 |
| Accumulated Depreciation | 110.90 | 59.37 | 29.91 | 200.18 |
| Capital subsidies | 42.53 | — | 23.11 | 65.64 |
| Cosumer contribution | — | — | 86.53 | 86.53 |
| Net Fixed Assets | 515.65 | 276.06 | 139.05 | 930.76 |
| Rate of return on the Net Fixed Assets | 3% | 3% | 3% | 3% |
| Return on the Net Fixed Assets | 15.47 | 8.28 | 4.17 | 27.92 |
| Sub-Total (B) | 15.47 | 8.28 | 4.17 | 27.92 |
| Total Costs (A+B) | 112.34 | 60.62 | 442.99 | 615.95 |

(*ii*) Employee cost has been projected by the Board by assuming an increase of 3% in the basic salary and 9% in Dearness Allowance.

(*iii*) Depreciation has been provided at the rate of 2.5% per annum.

(*iv*) Interest and finance charges have been calculated as applicable on the actual loans and in accordance with the accounting policy of the Board.

(*v*) The basis for projection of expenditure on other heads such as administrative and General charges has not been furnished by the Board.

(*vi*) Capitalization of Rs. 42.31 crores out of a total of Rs. 384.57 crores of employee costs has been proposed by the Board.

(*vii*) All the interest and finance charges have been treated as a part of revenue expenditure and no capitalization has been proposed for interest during construction. This policy is stated to have been followed by the Board in accordance with the letter received from the Central Electricity Authority in December, 1986.

**2.6 Revenue Requirement :**

(*i*) Based on the above estimates, the total revenue requirement of Rs. 940.10 crores has been projected by the Board. The details are presented in the table 2.5 below. The total in the table works out to Rs. 935.10 crores owing to an error of Rs. 5.0 crores made by the Board while calculating the revenue requirement. This was clarified by the Board through an affidavit field on September 19, 2001, in response to a Commission's query during the proceedings.

TABLE 2.5 : Revenue requirement for FY 2001-02

| Head | Amount (Rs. Cr.) |
|---|---|
| Power purchase | 361.46 |
| Repair & Maintenance | 21.[illegible]6 |
| Employee Cost | 384.57 |
| Adm. & Gen. Expenses | 16.30 |
| Depreciation | 32.01 |
| Interest and finance charges | 132.49 |
| Miscellaneous | 1.00 |
| Less capitalization | 42.31 |
| Sub-Total .. | 907.18 |
| Return on Net Fixed Assets | 27.92 |
| Error | 5.00 |
| Total - | 940.10 |

(*ii*) The projected revenue requirement of the Board is thus Rs. 935.10 crores (without error of Rs. 5 crores).

(*iii*) The average cost of suppyl has been worked out by the Board to be Rs. 2.98 per kWh.

(*iv*) The Board has calculated the Bulk Supply Tariff, *i.e.* the cost of delivering electricity at the transmission level to be Rs. 1.27 per KWh The voltage level at which this has been calculated has not been indicated.

(*v*) HPSEB has prayed to the Commission to allow 15.5% return on capital base instead of 3% rate of return on the not fixed assets.

(*vi*) Revenue from sale of power, *i.e.* 2380 MU, within the State at the existing tariff has been projected at Rs. 480.76 crores.

(*vii*) Revenue from sale of power of 778 MU outside the State at price of Rs. 2.42 per kWh has been projected at Rs. 188.28 crores.

(*viii*) The Board in its initial filing had estimated the 'other income' to be Rs. 24.69 crores. In the revised filing, the Board has, however, not provided an estimate on this account.

(*ix*) The total revenue deficit has been projected by the Board to be Rs. 271.06 crores as per table 2.6 below.

**2.7 Revenue Deficit :**

(*i*) The table below shows the revenue deficit by considering the expendiure including ROR and the gross revenue from sales within and outside the State.

TABLE 2.6 : Revenue deficit for FY 2001-02

| Head | Amount |
|---|---|
| | (*Rs. Cr.*) |
| (A) Expenditure including Rate of Return | 940.10 |
| (B) INCOME : | |
| Income from sale of power within State | 480.76 |
| Income from sale of power outside State | 188.28 |
| Other income | 0.00 |
| Total income | 669.04 |
| (C) Deficit (A-B) .. | 271.06 |

(*ii*) The revenue deficit is proposed to be met through the following measurres.

TABLE 2.7 ; Measures to cover revenue deficit.

| Head | Amount |
|---|---|
| | (*Rs. Cr.*) |
| Additional income from proposed tariff. | 152.15 |
| Additional income from porposed changes in the schedule of general and service charges | Not stated |
| Total .. | 152.15 |
| Revenue deficit | 271.06 |
| Gap | 118.91 |

(*iii*) Out of the total gap of approximtely Rs. 118.91 crores the Board has requested for creation of Regulatory Asset to the tune of Rs. 45 crores.

(*iv*) No measures have been proposed in respect of the balance of Rs. 73.91 crores, *i.e.* Rs. 118.91 crores less Rs. 45 crores.

**2.8 Existing and Proposed Tariff :**

Details of the proposed retail tariff structure are discussed in Chapter-5 along with the Rulings of the Commission. The table below, however, provides a summary comparison of the existing tariff and the tariff proposed by the Board.

TABLE 2.8 : Comparison of Existing and Proposed Tariff

| Sl. No. | Category | Existing Tariff | | Proposed Tariff | |
|---|---|---|---|---|---|
| | | Monthly Minimum Charges | Energy Charges (paise/unit) | Monthly Minimum Charges | Energy Charges (paise/unit) |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1. | DOMESTIC | | | | |
| | (*a*) 1-45 units/month | — | 70 | — | 125 |
| | (*b*) 46-150 units/month | — | 105 | — | 225 |
| | (*c*) 151-300 units/month | — | 150 | — | 225 |
| | (*d*) Above 300 units/month | — | 225 | — | 290 |
| 2. | NON-RESIDENTIAL | — Rs. 25.00 month/500 watts subject to a minimum of Rs. 50 for connected load upto 5 kW — Rs. 50/- month/kW for connected load above 5 kW | | Rs. 35/ month/500 watts subject to a minimum of Rs. 70 for Connected load upto 5 KW. Rs. 70/- month/kW for connected load above 5 kW | |
| | (*a*) 1-200 units/month | | | | 345 |
| | (*b*) 201-500 units/month | | 250 | | |
| | (*c*) Above 500 units/month | | 275<br>300 | | 345<br>345 |
| 3. | SMALL INDUSTRIES : | | 200 | | 245 |
| 4. | MEDIUM INDUSTRIES ; | | | | |
| | (*a*) At 400 volts | Rs. 95/-kW | 225 | Rs. 115/kW | 280 |
| | (*b*) At 11kV | | 215 | | 260 |

| 1 | 2 | | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 5. | LARGE INDUSTRIES (LS-I) | | Rs. 220/kVA | 270 | Rs. 260/kVA | 325 |
| 6. | LARGE INDUSTRIES (LS-2) | | Rs. 105/kVA | 250 | Rs. 130/kVA | 305 |
| 7. | WATER AND IRRIGATION PUMPING : | | | | | |
| | (a) At 400 volts | | Rs. 70/kW | 220 | Rs. 85/kW | 280 |
| | (b) At 11kV | | | 200 | | 260 |
| 8. | AGRICULTURAL PUMPING : | | | 50 | | 135 |
| 9. | BULK SUPPLY : | | Rs. 80/kW | 305 | Rs. 90/kW | 330 |
| | (a) At less than 11kV | | | 285 | | 310 |
| | (b) At 11 kV & above | | | | | |
| 10. | STREET LIGHTING | | | 200 | | 300 |
| 11. | TEMPORARY METERED SUPPLY | At double the corresponding permanent supply rates. | Correspon-ding permanent supply rates plus 100 surcharge | At double the corres-ponding permanent supply rates | | Corres-ponding permanent supply rates plus 100 % surcharge |

**2.9 Prayers by the Board**:

(*i*) The Board has made the following prayers in the Transmission and Bulk supply tariff:—

(*a*) To take the Filing of Proposed Transmission and Bulk Supply Tariff on record.

(*b*) To treat the filing as complete in view of substantial compliance for specific request for waivers with justification placed on record.

(*c*) To grant the waivers prayed for with respect to such filing requirements, as HPSEB is unable to comply with at this stage,as more specifically detailed and for the reasons set out therein the schedule to the tariff filing.

(*d*) To consider and approve HPSEB's FPT including all requested regulatory treatments in the FPT and associated ARR filings.

(*e*) To pass such order, as the Honorable Commission may deem fit and proper in the facts and circumstances of the case.

(*i*) In regard to Distribution and Retail Supply Tariff Petition, following prayers have been made :—

(*a*) To take the accompanying distribution tariff petition on record.

(*b*) To grant the waivers with respect to such filing requirements as HPSEB is unable to provide at this stage, as more specifically detailed and for the reasons set out there against, in the schedule to the distribution Tariff Petition prayed for and treat the filing as complete.

(*c*) To consider and approve HPSEB's FPT including all requested regulatory treatments in the FPT and associated ARR filings.

(*d*) To definte the terms and conditions for the payment of subsidy by Government of Himachal Pradesh, in fulfillment of the role contemplated for the Honourable Commission as per the Act, and

(*e*) To pass such order as the Honourable Commission may deem fit and proper in the facts and circumstances of the case.

## 3. STATE ADVISORY COMMITTEE'S VIEWS AND CONSUMER'S OBJECTIONS

3.1 The State Advisory Committee which met on August 17, 2001, at Shimla deliberated at length on the tariff petition filed by the Board amongst other issues on the agenda. The suggestions and views of the members of the Committee on the tariff petition have been recorded in the minutes of the proceedings and are attached as Annexure 3.1.

3.2 Open house sessions were held at the following places on the dates mentioned against each to receive vital inputs and suggestions from various consumer groups on the tariff determination exercise to be undertaken by the Commission:

(*i*) Dalhousie, April 19, 2001
(*ii*) Dharamshala, April 21, 2001
(*iii*) Hamirpur, July, 13 2001

The minutes of these sessions are available in the Commission's office for inspection.

3.3 The Commission issued separate notices inviting objections and suggestions on the filings/submitted by the HPSEB on (*i*) Distribution and Retail Supply Tariff, and (*ii*) Transmission and Bulk Supply Tariff in the following newspapers :

**Distribution and Retail Supply Tariff :**

(*a*) July 15, 2001 :

(*i*) The Tribune (Chandigarh edition)
(*ii*) The Indian Express (Chandigarh edition)
(*iii*) Dainik Bhaskar (Chandigarh, Hindi edition)
(*iv*) Punjab Kesari Jalandhar, Hindi edition

(*b*) July 16, 2001

(*i*) The Times of India (Chandigarh edition)

(*ii*) **Transmission and Bulk Supply Tariff**

August 25. 2001.

(*i*) The Tribune (Chandigarh edition)
(*ii*) The Indian Express (Chandigarh edition)
(*iii*) Dainik Bhaskar (Chdndigarh, Hindi edition)
(*iv*) Punjab Kesari (Jalandhar, Hindi edition)

3.4 The Commission had also directed the Board *vide* letter No. HPERC/Secy./151/DM/VS/393, dated May 5, 2001, to submit the proposal for Standards and Benchmarks in accordance with item 3·2 of the Guidelines for Revenue and Tariff filing. The Board submitted the proposal *vide* letter No. HPSEB/C. E (Commercial) /SERC, 2001-5245, dated August, 20, 2001. The

Commission issued a notice on August 25, 2001, in the leading newspapers inviting objections on the proposal of HPSEB.

35. The Commission received a total of thirty-two (32) objections complete in all respects to the Distribution and Retail Supply Tariff petition and two (2) objection to the Transmission and Bulk Supply tariff petition which were duly forwarded to the Board for the filing of rejoinders. The rejoinders were accordingly filed by the Board and further transmitted by the Commission to the respective respondents/intervenors.

3.6 In exercise of the power veted in it under Section 26 of the ERC Act, 1998, the Commission appointed the following three persons to represent the interests of the consumers in all the proceedings relating to the two petitoins before it. They shall be referred to as Consumer Representatives in this order.

(*i*) Chairman, CII, H.P. State Council, Chandigarh
Prof, R. K. Gupta, Shimla

(*ii*) Kauwar M. P. Singh, Dharamshala

3.7 The Commission held public hearings at the following locations with prior intimation to and appointment with the various objectors :

| | | |
|---|---|---|
| (*i*) | Shimla | September 18-20, 2001 |
| (*ii*) | Parwanoo | September 21, 2001 |
| (*iii*) | Nahan | September 22, 2001 |
| (*iv*) | Paonta Sahib | September 24, 2001 |
| (*v*) | Dharamshala | September 26, 2001 |

The respondents were given an opportunity to be heard in person during the public hearings. The list of those respondents who appeared before the Commisston during the public hearings and the dates/locations is attached as Annexure 3.2.

3.8 The Commission specified the following procedure to be followed in all the proceedings before it relating to the two peitions:

(*i*) The petitioner shall state his case giving details and justification of his proposal and followed by the objectors' response. The objectors shall be heard one by one and the arguments shall be wrapped up at the end of the day by the petitioner.

(*ii*) The persons appointed to represent the interests of the consumers shall be heard before the final collective wrap up of the day.

(*iii*) Any additional points not covered upon the written submission shall be rendered in writing before the evening of the following day.

(*iv*) Both the parties shall submit a written brief of arguments within seven (7) days of the hearings.

(*v*) On the request of the petitioner, the presentation of its case was allowed on the LCD Projector with equal opportunity given to various respondents. Audio recording of all the proceedings was rendered for total transparency.

(*vi*) The objectors were permitted to raise additional points, if any, over and above those mentioned in their written submissions.

(*vii*) Stakeholders other than the objectors were also allowed to attend the hearings.

(*viii*) The Commission gave opportunity to the stakeholders who were not listed, but wished to make formal written submissions separately.

3.9 The Commission regarded the hearings as an integral and important event to understand the problems and concerns of consumers as well as to have better perception and understanding of the matrix of complexities facing the power sector besides receiving the necessary inputs required for tariff determination. The Commission therefore encouraged transparent and participative approach in the hearings. The parties were heard with utmost attention, deep consideration and respect. The proceedings are recorded on audio tapes and are available for inspection in accordance with the procedure as may be laid down by the Commission.

3.10 The Commission has given anxious and deep thought to the various suggestions and objections received and the rejoinders filed by the Board. Some of the objections are general in nature, whereas others are specific to the details submitted in the Board's petition. Wherever the objections are on similar issues, they have been clubbed together for simplicity and ease of reference. These are therefore grouped in different categories according to the nature and character of the objection. In the following sections the major objections are first summarized, followed by the relevant reply of the HPSEB and finally the views of the Commission are given in conclusion of the discussion on each objection.

**3.11 Procedural Objections :**

**Objection :**

(*i*) The tariff filing has to be done three months prior to the date from which the tariff revision is sought. However, HPSEB filed the petition on April 30, 2001, but has sought the increase from June 1, 2001, and hence the petition should be rejected.

(*ii*) The Board has requested for retrospective increase in the tariff which is highly unfair, unjust and should not be allowed.

(*iii*) The filing of the Board is incomplete as forms 4.5 to 4.11 of the Guidelines for Revenue and Tariff issued by the Commission relating to the studies on Embedded costs and Marginal costs have not been completed and hence the petition should be dismissed. Further, the Board should have submitted separate bulk and retail tariff supply petitions.

(*iv*) The legal issue that the Board is a deemed licensee under Section 26 of the E (S) Act, 1948, was raised during the public hearings. It was further argued that as a consequence the tariff cannot be revised more than once in a year.

**Board's Reply :**

(*i*) Revised tariff should be levied with retrospective effect as it is losing Rs. 13 crores every month pending revision of tariff.

(*ii*) The Board currently does not have the relevant data and skill sets for computing embedded costs and marginal costs and has accordingly requested for a waiver in the current filing.

**Commission's Views :**

(*i*) and (*ii*) The Commission has given thoughtful consideration to the issue of retrospective application of tariff and is of the view that retrospective application would a violate the economic premise that demand is related to price. Moreover, since much of the delay in issuing the tariff order having been caused by the incomplete and inaccurate data furnished by the Board, it can be argued that the Board itself, more than anybody else is responsible for the delay. The Commission has, therefore, not approved retrospective applicability of the new tariff.

(*iii*) With regard to the objection of incomplete filing as per the prescribed guidelines, it is a fact that the Board was not used heretofore to working under the framework of independent regulation. The data syftems were therefore not built up to meet these requirements. Changes would take time or else cause a change shock. Without being to technical and fussy, the Commission has accepted the proposal of the Board. The Commission would, however, like to pointout thatit insisted on separate data for generation, transmission and distribution businesses. This information was made available by the Board. However, the Commission was not the least satisfied with the accuracy of this information. As an illustration, vital details of voltage-wise break-up of costs were not provided. In the future filings the Commission would insist that complete details are made available.

(*iv*) In respect of the objection at (*iv*) the above Commission during the hearings brought to the notice of the objectors the provisions contained in Section 59 of the E (S) Act, 1948, it is also relevant to note the definition of a licensee as provided under the E (S) Act, 1948 :

Quote

*"licensee" means a person licensed under Part II of the Inidan Electricity Act,* 1910 (9 *of* 1910) *to supply energy or a person who has obtained sanction under Section* 28 *of that Act to engage in the business of supplying energy* .

[*but, the provision of Section* 26, *or* 26 *A of this Act notwithstanding, does not include the Board or a Generating Company*]

*Unquote*

It is thus clear that the licensee as defined in the E(S) Act, excludes the Board notwithstanding Section 26. Further, Section 59 of the E(S) Act clarifies that the State Electricity Boards have a status distinct from the licensees.

Further, the plea of the objector that the tariff cannot be revised more than once in a year has no force because the last tariff revision was effected in May 2000. This being the first tariff revision during FY 2001-02, the objection is not valid.

**3.12 High Tariff Increase :**

**Objection :**

An overwhelming number of objectors as well as the consumer representatives have opposed the increase in the tariff. The numbers of the State Advisory Committee also opposed the steep hike proposed by the Board, in the meeting held on August 17, 2001. The arguments are mainly on the following lines:

(*i*) There have been frequent tariff hikes, the last one being in May 2000. The tariff hike proposed for smaller consumers is very high.

(*ii*) There should be a freeze on tariffs for industries for a period of 2-5 years, so as to facilitate long term planning of all economic activities.

(*iii*) It will become uneconomical for the industries to operate in Himachal Pradesh and they might be forced to close down as industry is already passing through a phase of recession due to broader economic downturn.

(*iv*) Increase in tariffs would wipe off the only source of competitive advantage of relatively cheaper electricity available to industrial consumers in Himachal Pradesh. All other inptus are expensive due to the disadvantage of being far away from the source of raw materials and the markets for the finished goods.

(*v*) High electricity prices would discourage industrial houses from setting up or expanding any industrial activity in the state, thereby impeding the industrial growth in the state. In such a scenario, industries would have to look at the option of relocating their units or establishing captive power plants.

**Board's Reply :**

(*i*) Tariff hikes are inevitable because of the increase in the cost of supply as well as to maintain the financial viability of the Board.

(*ii*) The power to examine the possibilities of defining a time period for the applicability of the tariff rests with the Commission. The Board will examine the issue and offer its comments whenever a consultation process on this subject is initiated.

(*iii*) Tariffs in Himachal Pradesh are the lowest as compared to the prevailing tariffs in the adjoining states like Haryana, Punjab, Rajasthan and Dehli.

**Commission's View :**

The Commission is inclined to share the views and apprehensions expressed by the industrial consumers because of the cross subsidy in the tariff structure and the industrial slide evidenced by declining consumption. A number of steps have been initiated by the Commission and these are dealt with in Chapter-5. The Commission has, however, not found it feasible to accept the suggestion for tariffs to be frozen for a number of years.

**3.13 Tariffs not based on cost supply :**

**Objection :**

(*i*) Tariffs do not reflect the average cost of supply.

(*ii*) There is high level of cross-subsidization in the tariffs in favour of domestic consumers at the expense of other customer classes. The State Government must fund the cost of such measures that are based on socio-economic and political considerations. This burden should not be passed on to either the utility or other consumers.

**Board's Reply :**

(*i*) The Board proposes to gradually reduce cross-subsidies and rationalize tariffs in line with Section 29(2) (c) and 29 (3) of the ERC Act and the guidelines issued by the Commission. The ERC Act, also states that tariffs should gradually reflect the cost of supply.

(*ii*) Provision of subsidy from the budget is a government decision over which the Board has no control.

**Commission's Views :**

Gradual reduction in cross subsidies to progressively reflect the true cost of supply or all customer classes is an important objective of the legislation. The Commission, in this order, has initiated a number of measures in this direction. However, the reduction in cross subsidy can only be brought about gradually to aviod rate shocks. These issues have been discussed in detail in Chapter 5.

**3.17 Under-estimation of Revenue Generation :**

**Objection :**

Non-tariff income of Rs. 37.73 crores as proposed by the Board for FY 2001-02 has not been taken into account while estimating the revenue at existing tariff resulting in overstating of the revenue gap by the Board.

**Board's Reply :**

Non-tariff income of Rs. 37.73 crores mentioned in the petition does not factor in the rebates availed by the consumers. After accounting for rebates, non-tariff income works out to Rs. 27.55 crores. The revenue gap estimated in the tariff petition is after taking into account this non-tariff income.

**Commission's Views :**

The Commission has examined the provisional accounts of the Board for FY 2001-02. During the technical discussion it also enquired from the Board about the non-tariff income. An appropriate amount has now been considered and the details are discussed in Chapter 5 of the Order.

**3.15 Cost of own generation :**

**Objection :**

(*i*) The cost of own generation in the State of Himachal Pradesh should be cheaper because of the availability of hydel power.

(*ii*) There are wide variations in the imputed cost of generation in respect of plants owned by the Board. These range from Rs. 3.95 per kWh to Rs. 73.38 per kWh. There was 19.08% drop in Board's own generation from 1480 MU in FY 1998-99 to 1198 MU in FY 1999-2000.

**Board's Reply :**

Generation in hydel plants is a function of plant and water availability. Seasonal vagaries, flooding due to natural calamities and restoration works affect the plant availability. The high cost of generation in some plants is due to outages for long periods of time.

**Commission's Views :**

The Commission has investigated the trend of hydel generation for a number of years and has considered the new plants that were expected to be operational during FY 2001-02 while assessing the quantum and cost of the Board's own generation. The details are discussed in Chapter 4 along with other elements of the revenue requirement.

**3.16 Cost of power purchase :**

**Objection :**

(*i*) The average cost of power purchase of the Board is very high.

(*ii*) In the absence of source wise power purchase and generation quantity and cost details, it is not possible to assess if the Board has followed the Merit Order Despatch Principles and the Least Cost Options in order to minimize the cost of power procurement.

(*iii*) The revenue receipts projected by the Board do not reflect free power from Malana as well as NHPC stations located in Himachal Pradesh.

**Board's Reply :**

(*i*) The Board does not have any control either on the costs or the quantity of purchase from Central Generation Stations as the purchases are based upon the respective shares allocated to the state. The tariff is detemined by Central Electricity Regulatory Commission.

(*ii*) Free power from Malana and NHPC stations has been taken into consideration and the Board strictly follows merit order in purchases.

**Commission's Views :**

The Commission investigated in detail the power purchase plan as well as the price projected by the Board. The Commission is not at all convinced with the contention of the Board that it has no control on the power purchase from Central Sector stations. The Commission has accordingly suitably amended the power purchase plan and its cost to the Board. This has been discussed in detail in Chapter 4.

**3.17 Employee Cost :**

**Objection :**

(*i*) The expense on account of employee cost is extremely high and has been rising steadily over the past few years.

(*ii*) The Board has not provided the break-up of its employee costs and has also not provided any explanation for the year on year increase in these costs.

(*iii*) Instead of making efforts to reduce the employee costs. The Board plans to spend another 12% on wages for the FY 2001-02 as compared to Rs. 307 crores in the FY 2000-01.

**Board's Reply :**

(*i*) The employee costs have been assumed to increase by 11% on account of increase in DA, nominal year-to-year increments in the pay scales and additional expenditure on regularisation daily rated workmen.

(*ii*) The Board in its attempt to curtail employee costs has largely frozen recruitment since 1987 and also abolished 540 posts in FY 2000-2001.

(*iii*) The employee cost of theBoard has to be seen in the context of the terrain and topography of Himachal Pradesh. Taking this factor into account, the costs are not very high.

**Commission's Views :**

Though the Commission has suitably moderated the increase, in future, it would move towards benchmarking of employee costs at industry best practices and internationally acceptable norms. Details are presented in Chapter 4.

**3.18 High Administration & General Expenses :**

**Objection :**

It has been argued that the administrative and general (A & G) expenses of the Board are very high. The A&G expenses have increased at 11% P. A. in the last three years. Considering the low prevailing rate of inflation in the country, the proposed increase appears to be high.

**Board's Reply :**

(*i*) These costs have to be viewed in the context of the difficult terrain and topography of the State.

(*ii*) The level of A&G expenditure is lower in Himachal Pradesh when compared to similar states like Assam, Bihar, Sikkim, Meghalaya.

**Commission's Views :**

This has been discussed in Chapter 4.

**3.19 Capital cost :**

**Objection :**

(*i*) The capital cost per MW of the power projects is very high. In Malana the project cost is only Rs. 3.75 crores per MW as against the Board's own projects costing between Rs. 5.5 crores to Rs. 7 crores per MW.

(*ii*) The high levels of Work in progress have resulted in high interest costs and depreciation costs for the Board.

**Board's Reply :**

(*i*) The cost of a project is impacted by a variety of factors including delays for a variety of reasons, which are beyond the control of the Board. The Malana project did not suffer such delays and hence the higher cost of the Board's projects cannot be attributed to any inefficiency on the part of the Board.

(*ii*) The high level of works in progress is due to non-receipt of completion certificates from the concerned project site which has resulted in time-lags in transferring assets to the fixed asset account.

**Commission's Views :**

The Commission holds the above explanation as otiose and self-denying. Thorough study and investigation should be conducted with a view to build up learning and skill inventories to compete with the Malana Project Management. **The Commission directs the Board to do a comparison of the capital cost of the Malana plant with the capital cost of the HPSEB's plants and submit a report on this aspect by March 31-2-2002.**

**3.20 Depreciation :**

**Objection :**

The rates at which depreciation has been computed for the FY 2001-02 have not been provided. This makes it difficult to determine whether the depreciation rates used are in accordance with those prescribed in the notification issued by the Ministry of Power, Govenment of India.

**Board's Reply :**

The Board has cited lack of adequate information on segregation of assets and the absence of effective management information systems, which have made it impossible to charge appropriate depreciation rates as per the prescribed rates. Segregation of assets has since been

concluded and depreciation would be claimed as per the applicable rates from the next year onwards.

**Commission's Views :**

The approach adopted by the Commission in calculating depreciation for the FY 2001-02 is discussed in detail in Chapter 4.

**3.21 Monthly Minimum Charges (MMC) :**

**Objection :**

(*i*) MMC should not be increased and should be kept at the minimal level.

(*ii*) This argument is based on the principle of equity, in that while the Board charges MMC, the consumer cannot claim anything from the Board in case it does not supply power in emergency situations or for the improper supply of power.

**Board's Reply :**

MMC represents fixed charges incurred by the Board in setting up generating stations, transmission lines, sub-stations etc. for providing service to the consumers. The Board had introduced MMC in place of fixed charges.

**Commission's Views :**

The Commission is of the view that the tariff structure must be transparent to reflect the fixed and variable costs separately. MMC is however not an efficient instrument and certainly not a substitute for the demand charges. The Commission has appropriately rationalized the tariff structure to reflect such transparency. The details are discussed in Chapter 5.

**3.22 High level of receivables :**

**Objection :**

(*i*) The Board upfront has very high level of receivables and steps need to be taken to bring them down. It was suggested that receivables from industrialists could be recovered to bridge the revenue gap.

**Board's Reply :**

(*i*) Out of the total of Rs. 111 crores outstanding as on March 31,2001, Rs. 70 crores is outstanding from the Irrigation & Public Health Department of GoHP and Rs. 7.80 crores against the various Municipal Committees/local bodies.

(*ii*) Efforts are being made to recover these dues by taking up the matter with the State Government.

**Commission's Views :**

(*i*) The Government of Himachal Pradesh should make provision for the electricity dues in the budget of the concerned departments, who should clear them promptly. Perpetuity of defaults on the part of the State Government Departments and local bodies will force the Board to either borrow at high rates of interest or defer crucial investments. This would affect the interests of the consumers besides eroding the financial viability of the Board.

(*ii*) The GoHP needs to consider a system such that amounts due to the Board are deducted from the funds available to these agencies and paid to the Board.

(*iii*) The Board may also consider other steps that would encourage local bodies to pay regularly and discourage and disincentivies habitually defaulting bodies.

**3.23 Peak load Violation Charges :**

**Objection :**

(*i*) Industrial consumers have objected to the present method of charging for peakload violation at 12.5% of the energy charges for the complete billing period irrespective of the extent of violation.

(*ii*) These charges should be in proportion to the energy consumed during the period of violation which is anyhow accurately determined with the installation of electronic meters.

**Board's Reply :**

(*i*) These charges are levied to maintain grid discipline during peak hours when the system network is severely constrained.

(*ii*) The Board is however, considering modifying these charges on the basis of the number and duration of such excursions.

**Commission's Views :**

The Commission is of the view that rational time of use (TOU) tariff regime is necessary for sending the right signals and promoting efficient consumption. The Commission has now rationalized these charges to the extent possible with the existing data and information.

**3.24 High Transmission & Distribution (T & D) losses :**

**Objection :**

(*i*) T&D losses of the state have been increasing constantly over the past few years. The high T&D losses should not be passed on to the consumers through high tariffs.

(*ii*) The petition does not quantify or factor in any gains that would accrue from T&D loss reduction and improvements in efficiency.

**Board's Reply :**

(*i*) The Board has projected a T&D loss figure of 25% for FY 2002-03 as against 27.15% for FY 1999-00 for sale within the State.

(*ii*) In order to segregate commercial losses from technical losses, cent percent interface metering at the boundary and metering of energy flows at 33 kV, 22 kV and 11 kV levels is required at both the distribution and feeder levels.

(*iii*) The Board is planning to undertake a number of initiatives to check losses including installation of electronic meters, shunt capacitors at load centres to improve the voltage of the distribution system and Demand-side management.

**Commission's Views :**

There is considerable scope for reducing the T&D losses. The Commission has approved a level that would be efficient and achievable by Board's own speaking. The details are given in Chapter 4.

**3.25 Quality of supply :**

***Objection* :**

There is a very high level of transformer failures, complaints of low power factor, under frequency, trippings of feeders etc. The Board's failure to give a performance improvement plan has evoked strong reaction from many consumers.

**Board's Reply :**

(*i*) The quality of supply has suffered due to overloading of the system consequent to growth in consumption. Information systems are being put in place to monitor the magnitude of the problem and take suitable measures.

(*ii*) Appropriate safety standards are being developed. As of now, the Board is yet to assess the economics of providing power factor incentive to the consumers.

**Commission's Views :**

Improvements in quality of supply are imperative quid pro quo for rationalization of tariffs. Increase in tariffs would be acceptable to stakeholders only if they go hand in hand with such improvements. The Commission has, therefore, approved the guaranteed standards and benchmarks as well as the token compensation in case of proven violations. These aspects are discussed in detail in Chapter 6.

**3.26 Time of Day Metering (ToD Metering) :**

**Objection :**

Industrial consumers have suggested that time of day metering should be introduced in the State. Also a lower night-time tariff would provide right incentives.

**Board's Reply :**

(*i*) Introduction of night-time/time of day tariff needs 100% ToD capable metering at 33/11 kV lines as well as a study of the load profile of consumers to determine the nature of incentives to be provided for encouraging the usage of energy during different time periods as well as at night. It is envisaged that 100% ToD capable metering at 33/11 kV lines would be complete by December, 2003.

(*ii*) The State Load Dispatch Centre is also expected to be operational by October, 2002. Time of day measurements will be introduced once the electronic meters are installed for the industrial consumers. The Board can take a view on time of day tariff policy after the above steps have been completed.

**Commission's Views :**

This issue has been discussed in detail in Chapter 5.

**3.27 Interest on Borrowings :**

**Objection :**

(*i*) The details of loan amount for FY 2001-02 have not been furnished. There are inconsistencies in the interest costs for the previous years furnished by the Board.

(*ii*) Most of the borrowings of the Board have been made to provide funds to the state government and hence interest on such borrowings should be disallowed.

(*iii*) The borrowing of Rs. 1500 crores against assets of Rs. 930 crores reflects a skewed capital structure and needs to be corrected.

**Board's Reply :**

(*i*) Details of the loan amount have since been furnished to the Commission on September 1, 2001. The inconsistencies pointed out were due to the exclusion of finance charges during FY 1999-00 and FY 2000-01.

(*ii*) The interest amount of Rs. 132.49 crores is inclusive of the interest on Working Capital to the extent of Rs. 15 crores. The Board has also clarified that the loans raised are being used in productive assets of the Board only.

**Commission's Views :**

The issue of interest charges has been discussed in Chapter 4 while assessing the ARR. As **regards the question of the capital structure of the Board, the Commission during the hearing held on September 21, 2001, directed the Board to commission a study on total financial management of the Board so as to determine an optimal capital structure, including key financial parameters.**

**3.28 Winter Surcharge :**

**Objection :**

(*i*) The levy of winter surcharge was against all norms of fairness. Many parts of Himachal Pradesh suffer a very harsh winter and consumers use electricity for heating.

(*ii*) The Board has failed to show its purchase cost for the power during the winter months to justify the levy of the winter surchage.

**Board's Reply ;**

The Board has already proposed to abolish the winter surcharge.

**Commission's Views :**

This issue has been discussed in Chapter 5.

**3.29 Power Factor Surcharge :**

**Objection :**

(*i*) The proposed tariff schedule has a penalty for consumers whose power factor falls below 0.90.

(*ii*) Corresponding to this there should be an incentive for consumers who are able to achieve a power factor higher than 0.90.

**Board's Reply :**

(*i*) The Board has yet to assess the economics of providing power factor incentive to the consumers.

(*ii*) Maintaining power factor at higher levels is itself an incentive as it benefits the consumer by way of reduced chances of damage to consumer equipment and lower energy charges.

**Commission's Views :**

The Commission has accepted the need to provide an incentive for higher power factor. It has accordingly introduced the kVAh based tariff for large power industries. This is discussed in greater detail in Chapter 5.

**3.30 Concessional Tariff :**

**Objection :**

(*i*) Senior Citizens should be supplied power at concessional rates as is being done in the Railways, Indian Airlines etc.

(*ii*) Retired Personnel of the Board should be given some free power as is being done in the case of serving officials.

**Board's Reply :**

(*i*) The Board has attempted to reduce tariff distortions by removing cross subsidies gradually. There is no provision for providing subsidies in the form of free power/concessional power to any class of consumers.

(*ii*) At present the employees of the Board are being provided free power upto a certain number of units. These are in the nature of incentives and should not be construed as supplying free power to its employees.

**Commission's Views :**

The Commission is in agreement with the Board and has accordingly not provided for concessional tariff for these two types of consumers.

**3.31 Increase in General and Service Charges :**

**Objection :**

(*i*) The increase proposed in these charges is unjustified.

(*ii*) The increase in the Advance Consumption Deposit (ACD) is higher in the case of large consumers. It is not correct to charge more from those consumers who run their units for two/three shifts.

**Board's Reply .**

(*i*) The charges have not been revised since 1987. Various costs have gone up since then and the Board cannot afford to carry these costs on its books.

(*ii*) The ACD is based on the average billing made in a particular category on the basis of the average hours of consumption. For large industrial consumers and those running their units for two or three shifts is reasonable to charge a higher amount because of higher consumption.

**Commission's Views :**

The Commission is of the view that these charges need to be rationalized. It has, however, suitably amended the proposals of the Board and the details are presented in Chapter 5.

**3.32 Unproductive Assets :**

**Objection :**

The unproductive properties and assets of the Board, like land, rest houses and obsolete stores should be sold to improve the liquidity and reduce the interest burden.

**Board's Reply :**

(*i*) There are not unproductive assets with the Board presently.

(*ii*) The Board has been following the accounting practice of charging the value of these assets to the revenue as and when identified.

**Commission's Views :**

The Commission had directed the Board to furnish an affidavit in support of its statement. The Board has not so far submitted the same although this was to be done by October 24,2001. **The Commission wishes to place on record its deep displeasure for the non-compliance of its direction to the Board and that in future such disregard to the Commission's orders will be dealt appropriately as specified under Section 44 of the ERC Act.**

**3.33 Procedure for Load Sanction :**

**Objection :**

The procedure for load sanction must be simplified and a suitable time frame must be fixed at various sanctioning levels.

**Board's Reply :**

(*i*) The Board has been constantly taking steps to reduce the time taken for sanctioning of load. The procedure for load sanction and Power Availability Certificate (PAC) has been considerably simplified.

(*ii*) The power of issue of PAC/load sanction has been decentralised and is delegated to the field officers upto 2MW at 11 kV and below.

**Commissioner's Views :**

The Commission appreciates the efforts of the Board but considers that there is further room for improvement. **Accordingly the Commission has given a directive to the Board to examine the procedure for sanctioning new connections and prepare a proposal for simplification of the procedure and reduction in the delay in obtaining clearance from various departments and agencies for the purpose of approval of new applications for supply and submit the same to the Commission by March 31, 2002.**

**3.34 Fixed Charges to be Based on Contract Demand :**

**Objection :**

The fixed charges should be based upon contract demand and not on the sanctioned load.

**Board's Reply :**

While designing the tariff for monthly minimum charges, average demand and the load factor are taken into consideration. With the provisioning of electronic meters for all consumers with

load of 20 kW and above, the consumption characteristics of categories would become apparent and then the Board can consider a shift of the basis of charge if required.

**Commission's Views :**

The fixed charges have been rationalised by the Commission. Details are given in Chapter 5.

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ANNEXURE 3.1

## HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION RECORD NOTE OF DISCUSSIONS OF FIRST MEETING OF STATE ADVISORY COMMITTEE OF HPERC HELD ON 17TH AUGUST, 2001

### VENUE : COMMITTEE ROOM, H. P. SECRETARIAT, ARMSDALE BUILDING, SHIMLA

List of participants is enclosed as an Annex to this record note of discussions.

1.00 At the outset, the Chairman HPERC in his capacity as ex-officio Chairman of the State Advisory Committee welcomed the members to the first meeting of the State Advisory Committee while regretting the absence of three eminent members viz. Shri Suman Bery, Shri Balram Reddy and Shri Sambamurthy, he hoped that they should be able to attend the next meeting and enable HPERC to benefit from their valuable advice. Brief introduction of the members followed.

The Chairman gave a brief account and the background of the constitution of the commission and the State Advisory Committee, the objectives thereof and commented that just as the regulatory commission was a creation of the statute, the State Advisory Committee too was a statutory committee whose advice on matters listed under section 25 of ERC Act was a mandatory requirement for any major matter of policy. He further explained that despite the crippling shortage of staff and other severe constraints, difficulties and problems associated with the initial setting up of the commission, the commission had been able to achieve in just about three months without spending any worthwhile expense what other state commissions were able to achieve in 1½ to 2 years after spending crores of rupees. He gave account of the concept papers and guidelines issued and the regulations made so far by the commission. Efforts were on to bring out the remaining concept papers. Committee Members were informed about the meager budget allocations to the HPERC and that the issue of providing initial startup corpus fund had been taken up with the state government. Adequate budgetary support together with the fees, fine and charges collected by the commission should be placed at the disposal of the commission for defraying its expenses.

Chairman further informed the Advisory Committee Members that while conveying the sanction for the creation of staff in May 2001, the government had stipulated absorption on permanent basis as the sole route for filling up the vacancies in the commission. This condition has now been relaxed and the staff is also permitted to be taken on deputation as well.

Chairman also appraised the Members that the mandatory functions under Section 22 (1) of *Electricity Regulatory Commissions Act*, 1998 alone had been assigned to the commission. The matter regarding conferring the non-mandatory functions enshrined under section 22 (2) was under the consideration of the state government. The Chairman placed on record the deep appreciation for the unstinting support that the commission had received from the state government in general and the Hon'ble Chief Minister in particular.

2.00 The Secretary HPERC, in his capacity as Secretary of the State Advisory Committee, thereafter read out his report on the progress made by HPERC and the issues which needed to be addressed by the Commission. He listed out the works so far done by the commission and

the agenda for the future. "The HPSEB has filed distribution and retail supply tariff petition, objections and suggestions had been received and the public hearings were being planned", he told the members. Thereafter the various agenda issues were taken up for discussion.

**3.01 Guidelines for Conduct of Proceedings of the State Advisory Committee :**

The Members of the State Advisory Committee appreciated the level of achievements obtained by the HPERC despite severe constraints. Attention was drawn by members to clause 8 (*iii*) of the above guidelines wherein it has been provided that in the absence of Chairperson, the senior most memebr of the commission shall act as the Chairperson of the meeting. HPERC being a single member commission. Being the single member Commssion, this provision was not relevant. It was explained that this was kept to provide for appointment of more members in future. The members also wanted to know if the periodicity of six months was final and inflexible. It was informed that meetings could be held earlier too.

Members were informed that all the guidelines and regulations being issued by the HPERC were public documents open for examination and inspection by all and sundry and that these are shortly going to be available on the HPERC's Web Site. The copies were also available on demand by any member.

There was all round appreciation for the most cordial relations the HPERC had with the state government and the other players in the field of electricity industry, unlike many other states where they had run into conflict with one another.

**3.02 Guidelines for Revenue and Tariff Filing :**

The Members were informed that the guidelines for revenue and tariff filing were issued on 23rd Febuary, 2001, HPSEB, based on these guidelines have filed their first tariff petition. The guidelines had the provision for various plans, programmes and policies besides the key performance indicators and the guaranteed bench marks and standards to be furnished by the Board. Some of these were read out to the members.

**3.03 HPERC (Conduct of Business) Regulations, 2001 :**

Members were informed that these regulations were framed on 31st March, 2001 and gazette notification issued. However, this shall be available on the web site being hosted by HPERC.

**3.04 HPERC (Appointment of Consultants) Regulations, 2001 :**

Chairman informed the Members about the above Regulations made on 28th February, 2001 and appointment of TERI as its consultant for assistance in the first tariff filing by HPSEB and Shri D..R. Sood, as Retainer Consultant in techno-commercial matters.

**3.05 HPERC (Management/ Development of Human Resources) Draft Regulations, 2001 :**

Chairman informed the Members that the draft regulations were initially submitted to the Government of Himachal Pradesh during the month of February, 2001 which were, however, recalled to make provision for permanent absorption. These were subsequently resubmitted to the Government of Himachal Pradesh on 11-7-2001 after incorporating the service requirement/ conditions in respect of employees wishing for permanent absorption.

**3.06 Tariff Petition by HPSEB :**

Following comments/suggestions were made by the members :

(*i*) Concerns were expressed about the capital structure of the HPSEB being totally non-viable and needed urgent attention pointing out that while assets totaled Rs. 900

crores, the interest liability was to the tune of Rs. 133 crores. Further, the HPSEB's borrowing of Rs. 1400 crores was on the higher side and should be limited to Rs. 500-600 cores. Members were emphatic that with this kind of capital structure, the organization is doomed and immediate steps should be taken to correct the skewed up structure.

(*ii*) No funds were shown earmarked for environmental protection in the tariff petition filed by HPSEB. It was recommended that the environment protection should be carried out by a Separate agency.

(*iii*) The interest on working capital taken for calculating the pooled cost of generation for the year 1999-2000 was on the higher side.

(*iv*) HPSEB was raising funds at higher cost of borrowing as compared to the private companies who obtained such loans at much lower rate of interest rate of 10-11%.

(*v*) There were lot of inconsistencies and inaccuracies in the data furnished by HPSEB in the tariff petition.

(*vi*) Regulatory uncertainties should be kept to the minimum to attract the private investment in the state and the multi year tariff could be a step in that direction. It was clarified that while the multi year tariff setting is not permissible, long term tariff principles can always be adopted in matters which should be and can be dealt on long term basis. The imperative *sine qua* non for this condition however was an accurate data base and M. I. S. without which the distortions in tariff based upon inconsistent and inaccurate data could be carried forward in the subsequent years too.

(*vii*) Suggestion was made that the Government should subsidize wherever the tariff charged is less than the cost of supply.

(*viii*) 12% free power from Malana Power Plant and sale to Delhi @Rs. 2.40 should be accounted for in the HPSEB's petition.

(*ix*) There was consensus that the commission should evolve a tariff which is simple, rational, performance based with emphais on environment standards and aviod rate shocks.

(*x*) The wheeling charges adopted for the tariff fixation in the HPSEB petition as 19 paise per unit, was much higher than that payable/chargeable to the IPPs, which is 2.5%.

(*xi*) Some of the members pointed out that the cost of generation has been indicated as 108 paise per unit which in their opinion was high. It was clarified that his cost had also an element of power purchase, which being thermal was costlier. The members felt that the cost of generation and purchase for state like Himachal Pradesh, which is exclusively hydel, should be about 70 paise and certainly lower than 108 paise.

(*xii*) High level of O&M charges were a matter of concern. The O&M expenditure should be brought at par with the national level. In this connection, it was clarified that the O&M charges for the generating stations, transmission & distribution have to be higher than the national level because of the geographical conditions obtaining in *H.P.*

(*xiii*) Plant availability in respect of HPSEB plants was very low and needed to be raised.

(*xiv*) The T&D losses which were indicated as 17-18% in the original petition have now been increased to 25%. They were explained that 17-18% loss was calculated after taking into consideration the power sale to the other states. However, the T&D losses for sale of electricity within the State remained at 25%. Members pointed out that PSEB adopts a figure of 18% T&D losses for the purpose of tariff finalisation. Similar figures can be also adopted in respect of HPSEB for tariff fixation.

(*xv*) There was need to cut down on employee cost, distribution cost, T&D losses and overall inefficiencies of HPSEB.

(*xvi*) HPSEB was not sincere in reduction of losses and that the bench mark for loss reduction should be 3-4% every year instead of 1% proposed in the tariff petition.

(*xvii*) Incentive should be allowed to consumers in the tariff structure who maintained a higher power factor.

(*xviii*) HPSEB must take effective steps to curb theft and pilferage of electricity.

(*xix*) Some members wanted the commission to work out if the cost of power purchase will reduce once the ABT comes into force.

(*xx*) Due to inefficiencies of HPSEB, the consumers are made to suffer by paying higher tariff.

(*xxi*) Bench marks have to be fixed for brining about an overall effciency improvement in the functioning of the Board.

(*xxii*) Although HPSEB has stated that efficiency inporvement shall be brought about in the working of the Board, these figures needed to be quantified.

(*xxiii*) In the last one and half year there has been about 50% hike in tariff on medium industries which was causing great concern.

(*xxiv*) The winter surcharge should not be imposed on the industrial consumers since their consumption does not go up during winters, unlike other categories of consumers.

(*xxv*) Some of the members suggested the adoption of time of day tariff.

(*xxvi*) Members were also concerned about the high transmission and distribution losses and the wheeling costs. Slow industrial growth in the state and instances of closure of industrial units were attributed to high electricity tariff. Members emphasized that one of the methods of making industries viable would be to make the industrial tariff competitive without cross subsidizing other types of consumers.

(*xxvii*) A study on elasticity of demand of industrial consumption in Himachal Pradesh should be carried out.

(*xxviii*) There was danger of industries switching over to captive power generation if the electricity rates were too high.

(*xxix*) With cent per cent metering, there was no justification for monthly minimum charges and linkages with the connected load which are a source of harassment of consumers.

(*xxx*) The need to allow part annulization of the tariff was discussed without any outcome.

(*xxxi*) The advance consumption deposit has been substantially increased by theHPSEB in respect of certain categories of consumers.

(*xxxii*) Members were also interested in having information about the action plan of HPSEB to reduce manpower.

**3.07 Draft Guidelines for Power Purchase Agreements upto 5 MW :**

Draft guidelines circulated earlier were discussed and widely appreciated by the members Chairman informed that the guidelines shall be finalized after taking into consideration the views and comments received from various quarters. Some members wanted the directions to be given by the commission for hydro development in future.

Members cautioned that if due care about environment protection is not taken and the catchment area protected, the performance of the hydel projects is bound to suffer due to high level of silt that will be generated.

**3.08 Concept Paper on retail supply tariff :**

The concept paper was hailed as one of the finest papers read by members in a long time covering all aspects of tariff making as it did. The concept paper on tariffs clearly spells out the commission's mind in the matter and in order to bring about competition, efficiency and economy, a mix of Cost of Supply (COS), Long Range Marginal Cost (LRMC) and the Performance Based Rate (PBR) making could be thought of. Members also pointed out the need for proper load

forecast and research so that the annual revenue requirement could be projected more realistically while fixing the tariff. The Chairman appreciated the concerns of the Members and informed them that adequate care shall be taken to ensure that the HPERC performed the role of a facilitator in the development of the State.

**3.09 Concept Paper on Bulk Supply and Transmission Tariff :**

Members were informed that the HPERC was considering adopting the terms and conditions for the bulk electricity tariff as decided by CERC in its order on petitions 4, 31, 34, 85, 86, and 88/2000 except for O&M of the power stations and the transmission lines which will be finalized based on the conditions existing in the state of Himachal Pradesh .Members however pointed out that these orders of CERC have been challenged in various courts and therefore HPERC should tread cautiously.

**3.10 Guidelines for Load Forecast, Resource Planning and Power Procurement :**

It was informed that these guidelines have been issued to the HPSEB and bassed primarily on the similar guidelines framed by HERC. Members pointed out that the load forecasts being carried out by HPSEB should fit into the national plan and be realistic so that the projections are reasonably correct.

**4.0 Views on major questions of policy covering the following issues :**

(*a*) **Tariffs :**
(*b*) **Power Purchase Agreements :**
(*c*) **Proposed HP State Electricty Grid Code :**
(*d*) **Proposed PH State Electricity Distribution and Supply Code:**
(e) **Proposed Regulations for competition, efficiency and economy in HPSEB.**

(*a*) Concerns were expressed about the high cost of generation in HP and the need to control environment so that the silt flowing in the rivers could be controlled.
(*b*) Members were informed that the HPSEB has still to submit the Grid, Distribution and Supply and Services codes which had been desired by the Commission. HPSEB has sought extension upto 20th August, 2001.
(*c*) Members pointed out that the Grid Code being framed by HPSEB should be in conformity with the Indian Electricity Grid Code finalized by the CERC.
(*d*) *Members pointed out that* while finalizing the Distribution and Supply and Services codes, due attention should be paid to quality, overall performance (guaranteed performance indicators) and building up of proper data bank so that regularitor functions could be monitored very closely. Some of the Members wanted that guaranteed standards and bench marks should be submitted by HPSEB.
(*e*) Chairman informed that the comprehensive regulations to bring about competition, efficiency and economy in the electrical industry were necessary. This could however be done after a comprehensive study of the various aspects of the working of utility.
(*f*) Some members wanted the S. A. C. to meet to discuss the above codes as and when filed by HPSEB. This was agreed.

**5.0 Views on matters relating to quality, continuity and extent of services provided by the Board :**

Members pointed out frequency spikes being faced by the customers leading to failure of highly sensitive equipment and the voltage variations experienced by the consumers in Himachal Pradesh. It was explained that the frequency control is beyond the powers of HPSEB because of the nature of grid operation. However, the voltage fluctuations being experienced by the consumers call for installation of reactive compensating devices by the HPSEB at their Sub-Station and by the consumers at their premises to bring about improvement in the power factor. They were

concerned about the continuity of power supply and pointed out frequent power interruptions that the consumers are exposed to.

**6.0 Views on protection of consumer's interests in Himachal Pradesh :**

Chairman informed the Members that the very objective of the Regulatory Commission was the protection of consumer interests and reliable supply at affordable and reasonable price.

**7.0 Views on energy supply and over all standards of performance of HPSEB :**

Members were concened about the performance standards of HPSEB and highlighted the need to bring about an overall improvement in the functioning of the generation, transmission and distribution of the HPSEB within fixed time frame. Members wanted that HPSEB must fix bench marks on year to year basis so that an overall improvement in the efficiency of the system is brought about in a fixed time frame.

Chairman thanked all the members for their valuable contribution to the Advisory Committee Meeting. The meeting ended with a vote of thanks to Chair.

ANNEXURE-A

**LIST OF PARTICIPANTS**

| | | |
|---|---|---|
| 1. | Shri S. S. Gupta | Ex-officio Chairman, State Advisory Committee |
| 2. | Shri Dinesh Malhotra | Secretary, State Advisory Committee |
| 3. | Shri SatishBarodia | Member -do- |
| 4. | Shri Alok Sharma | Member Advisory Committee |
| 5. | Shri Sachit Jain | Member -do- |
| 6. | Shri A. V. Giri | Member -do- |
| 7. | Shri K. Ramanathan | Member -do- |
| 8. | Shri P. C. Dhiman | Member -do- |
| 9. | Shri P. K. Sood | Member -do- |
| 10. | Shri D. N. Bansal | Representative of HPSEB |
| 11. | Shri P. N. Bhardwaj | Executive Director, HPERC |
| 12. | Shri Ashok Mahajan | Executive Director, HPERC |
| 13. | Shri D. R. Sood | Retainer Consultant, HPERC |

ANNEXURE-3.2

**List of the objectors who appeared before the Commission during the Public Hearings**

| Venue<br>1 | Date<br>2 | Time<br>3 | Name of the Party/Objector<br>4 |
|---|---|---|---|
| Shimla | 18-9-2001 | 10.30 hrs. | (*i*) Shimla House Owners Association, Shimla.<br>(*ii*) A. C. C. P. O. Barmana, District Bilaspur. |
| | | 14.30 hrs. | (*i*) PHD Chambers of Commerce and Industries Association, Asian Village, New Delhi. |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| | | | (*ii*) Himachal Pradesh State Federation of Cloth Merchant Association, Shimla. |
| Shimla | 19-9-2001 | 10.30 hrs. | (*i*) Gujart Ambuja Cement, Darlaghat, District Solan.<br>(*ii*) Gramin Kalyan Samiti, Panchayat Baldenya, Shimla. |
| Shimla | 20-9-2001 | 10.30 hrs. | (*i*) H. P. Senior Citizens Forum-*cum*-Engine Ghar Welfare Association, Shimla. |
| | | 14.30 hrs. | (*i*) Shri J. C. Chauhan, Additional Secretary, Department of M. P. P. & Power, Government of H. P. Shimla.<br>(*ii*) Prof. R. K. Gupta (Consumer Advocate Appointed by the Commission). |
| Parwanoo | 21-9-2001 | 10.30 hrs. | (*i*) Parwanoo Industries Association, Parwanoo.<br>(*ii*) Goutermann Pipers Ltd. Solan. |
| | | 14.30 hrs. | (*i*) Laghu Udhyog Bharti, Baddi, District Solan.<br>(*ii*) Confederation of Indian Industries, NR Chapter, Chandigarh.<br>(*iii*) BBN Industries, Baddi, District Solan.<br>(*iv*) Shri L. D. Sharma, Bhagwati Plastic, Parwanoo.<br>(*v*) Shri S. R. Verma, Director, Plato Polymars, Parwanoo.<br>(*vi*) Shri Madan Sharma, Himalya Plastics Ltd., Chambaghat, Solan.<br>(*vii*) Shri Bhawani Sharma, Kulja Industries Ltd. Chambaghat, Solan.<br>(*viii*) Shri Nand Lal Sharma, Himalayan Pipe Industries, Saproon, Solan.<br>(*ix*) Shri Balwinder Kumar Sharma, Dynamic Petro Products, Parwanoo.<br>(*x*) Shri Sachit Jain, Chaimran, Confederation of Indian Industries, NR Chapter, Chandigarh, (Consumer advocate appointed by the Commission). |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| Nahan | 22-9-2001 | 10.30 hrs. | (i) Kala Amb Chambers of Commerce and Industries, Kala Amb.<br>(ii) M/s Ruchira Papers Ltd, Kala Amb.<br>(iii) M/s Umesh Industrial Enterprises (P) Ltd. Kala Amb. |
| Paonta Sahib | 24-9-2001 | 10.30 hrs. | (i) Himachal Chambers of Commerce and Industries, Paonta Sahib.<br>(ii) Vyapar Mandal, Kishan Mandal, Paonta Sahib.<br>(iii) Himachal Special Steel Industries (Pvt.) Ltd, Paonta Sahib.<br>(iv) LS-1 Consumer Forum, Industrial Area, Paonta Sahib.<br>(v) Kala Amb Chambers of Commerce and Industries, Kala Amb. |
| Dharamshala | 26-9-2001 | 10.30 hrs. | (i) District Industries Association, Mehatpur, Una.<br>(ii) Small Industries Association, G. T. Road, Damtal, District Kangra.<br>(iii) Shops, Restaurants and Hotel Association, Dharamshala.<br>(iv) Kanwar M. P. Singh (Consumer advocate appointed the Commission). |

## 4-AGGREGATE ANNUAL REVENUE REQUIREMENT (ARR) AND COMMISSION'S ORDERS

4.1 The Commission has gone to painstaking lengths to investigate each element of the revenue requirement as proposed by the Board. Suggestions and the objections filed by various respondents on the individual items of expenditure proposed by the Board have been immensely useful to the Commission. The following paragraphs discuss the Commissions analysis along with the ruling on each element of the revenue requirment.

**Sales Projection :**

4.2 The Board initially forecasted a total sales estimate of 3379 MU comprising of sale of 2607 MU within the State and 772 MU outside the State. This projection was made on the basis of past trends and anticipated growth and included 14% growth in sales to Industrial consumers. The Commission examined the estimate of high growth rate particularly in view of the everage growth rate of about 5-6% per annum registered over the last five years and actual decline during the last 1-2 years. The Board clarified that the higher projection of growth was attributed to additional industrial load expected following the commissioning of new transformers and system strengthening schemes in Barotiwala, Baddi, Nalagarh, Paonta and Kala Amb areas. It was agrued that the commissioning of these schemes would lead to removal of capacity constraints in the key industrial areas and stimulate higher anticipated growth.

4.3 The Commission calculated the compound average growth rate (CAGR) in each of the categories based on the data for last five years. Details are presented in the table below. The

commission is of the view that in the absence of any specific study by the Board to scientifically assess the demand in each of the consumer categories, CAGR is the only appropriate method to fore cast the sales. This is so because the CAGR methodology per se normalizes any short-term year through year fluctuations. The Commission has, therefore, approved the sales for FY 2001-02 based on the CAGR methodology. The total retail sale as approved by the Commission is 2376 MU. It may be noted that the total sale as derived using this methodology is about the same as the revised figure of 2380 MU made available by the Board during the technical discussions and is based on the actual trend during the first few months of the current year.

Table 4.1 : Sales (Past trends/Proposed/CAGR methodology/Approved)

| Sl. No. | Category | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 | CAGR % | FY 2001-02 HPSEB Proposal (MU) | FY 2001-02 Projection using CAGR (MU) | FY 2001-02 HP ERC analysis and Approval (MU) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Energy consumption (MU) | | | | | | | | | |
| 1. | Domestic | 388 | 427 | 474 | 538 | 594 | 637 | 10.43 | 693 | 703 | 703 |
| 2. | Non-Residential | 112 | 121 | 135 | 140 | 149 | 162 | 7.60 | 172 | 174 | 174 |
| 3. | Industrial: | | | | | | | | | | |
| (i) | Small Industries | 50 | 53 | 53 | 54 | 54 | 54 | 1.67 | 59 | 55 | 55 |
| (ii) | Medium Industries | 126 | 135 | 152 | 151 | 166 | 116 | —1.57 | 127 | 115 | 115 |
| (iii) | Large Industries (LS-1) | 167 | 160 | 154 | 116 | 94 | 100 | —9.84 | 109 | 90 | 90 |
| (iv) | Large Industries LS-2) | 475 | 563 | 661 | 753 | 797 | 799 | 10.96 | 871 | 886 | 886 |
| | Sub-Total (3) | 818 | 911 | 1020 | 1073 | 1111 | 1069 | | 1166 | 1146 | 1146 |
| 4. | Water & Irrigation Pumping | 149 | 149 | 163 | 176 | 184 | 208 | 6.86 | 216 | 222 | 222 |
| 5. | Street Lighting | 5 | 6 | 6 | 7 | 8 | 8 | 11.68 | 9 | 9 | 9 |
| 6. | Agricultural Pumping | 12 | 11 | 11 | 12 | 17 | 19 | 9.43 | 21 | 21 | 21 |
| 7. | Bulk supply | 113 | 133 | 138 | 138 | 118 | 103 | —1.92 | 103 | 101 | 101 |
| | **Total** .. | **1598** | **1758** | **1947** | **2083** | **2182** | **2206** | | **2380** | **2376** | **2376** |

4.4 A priori, the Commission is of the view that the Board needs to undertake a detailed study for load research to determine the load profile of consumers supplied under each tariff to correctly understand its short term and long term peak and energy requirements. The Commission had accordingly directed the Board on September 18,2001 to submit a plan by September 30,2003 for undertaking load research to determine the load profile of consumers supplied under each tariff.

4.5 The Board had subsequently revised its export projections to 778 MU during FY 2001-02. The actual exports during FY 1999-00 and FY 2000-01 were 682 MU and 616 MU respectively. The Commission has approved the projection of 778 MU.

4.6 The total sale as approved by the Commission is thus 3154 MU comprising of 2376 MU of retail sale and 778 MU of sale outside the State.

**Transmission and Distribution loss :**

4.7 The Board has projected an overall T&D loss (loss calculated by including the sale to consumers outside the State) of 18.96% for FY 2001-02. The T&D loss on the sale to consumers within the State is 23.5%.

4.8 The Government of Himachal Pradesh has signed a Memorandum of Understanding (MOU) with the Government of India under which it has agreed to reduce the T and D loss by one percentage point every year from FY 2002-03 onwards subject to a reduction of 5% in five years.

4.9 During the presentation made by the Board during the public hearings, the Board strongly argued that a reduction of more than 1% point per year would not be achievable.

4.10 The Commission inquired as to the division of total loss into technical and non-technical components. The Board replied that since no study had been carried out to inquire into the nature and type of loss, it was not possible to provide this information.

4.11 Almost all the objectors criticized the Board for the high transmission and distribution losses. It was pointed out that the Board had neither provided the break-up between the technical and non-technical losses nor proposed the steps to reduce them. It was also argued that the T and D losses of the HPSEB were much too high and that if the electricity supply business was to be run on efficient and commercial lines then the losses must be brought down considerably.

**4.12 The Board has relied very heavily upon the MOU signed between the GOHP and GOI in it's pleadings and presentations before the Commission and indeed made it the raison-d-etre of its commitment towards the reforms in the powers sector. The Commission would be inclined to accept the said MOU as gospel and the milestones set out therein by the GOHP and the Board themselves as scred and hold down the Board to this MOU and the milestones set out therein insted of any new and arbitrary indicators.**

**4.13 As stated above, the Board has proposed a transmission and distribution loss of 18.96% for FY 2001-02. While the MOU may have been signed to reduce the loss by 1 percentage point every year from FY 2002-03, there is no reason to wait till then and allow the losses to increase in the meanwhile. instead the Board should have made pre-emiptory efforts to reduce them. The Commission is of the opinion that a loss higher then 17.96% for FY 2001-02 would represent unjustifiable levels of inefficiency. It would also violate the sprit enunciated in the MOU signed by the owners of the utility, i.e., the Government and the management i,e. the Board. Clearly, such inefficiency can not be allowed to be passed on to be the consumers.**

**4.14 The Commission shares the view that the T and D losses in Himachal Pradesh are higher than the efficient level. The Board therefore needs to gird up efforts to reduce the same to some benchmarked minimum. The Commission accepts the benchmark reduction set out in the MOU signed by the Government of Himachal Pradesh and the statements made by the Board during the public hearings. Thus a reduction of 1% point every year is achiveable by Board's own speaking and should be made.**

**4.15 The commission has accordingly approved overall transmission and distribution loss of 17.96% for the purpose of tariff determination. Should the Board be unable to achieve this level the balance will be borne either by the Board or by the Government. This ruling is in line with the prescription of commercial working whereby losses due to inefficiency are borne either by the investors or by the company. Consumers cannot be made to pay for such losses.**

4.16 As stated above, the T & D loss within the State, *i. e.* loss sans the sales outside the State is projected at 23.5%. The Commission directs that a comparable reduction in the T & D loss within the State shall also be achieved by the Board.

4.17 The Commission on September 18,2001 also directed that the Board would submit a plan by March 31,2002 for reducing loss both technical and non technical together with relevant load flow studies and details of investments requirement to achieve the planned reductions. The Commission also observed in its interim order on September 20,2001 passed in the course of public hearing that investments must aim at reducing the T & D losses and better quailty of supply and service to the consumers as it happened in the case of Palampur area which has mixed domestic and commercial loading. The strategy can be considered for adoption elesewhere also to produce *similar results. The Board has confirmed and undertaken to complete this study by March,* 31, 2002.

**Energy Requirement :**

4.18 The Board has projected energy requirement of 3897 MU based on the sales of 3158 MU, *i.e.* 2380 MU within the State and 778 MU outside the State, and transmission and distribution loss of 18.96%.

4.19 Based on sales of 31.54 MU, *i.e.* 2376MU within the State and 778MU outside the State, approved by the Commission and the transmission and distribution loss of 17.96%, the total energy requirement would be 3845 MU and is accordingly approved.

**Energy Generation at Board's stations :**

4.20 The Board has projected gross generation of 1336 MU from its own power plants. Estimate has been made by the Board on the basis of past trends. The auxillary consumption is estimated to be 6 MU and the net generation available is therefore projected to be 1330MU.

4.21 The commission's analysis of the actual generation at each of the station from FY 1996-97 to FY 2000-01 is presented in the table belwo along with the 5 years average.

Table 4.2* : Generation at HPSEB plants (Past trends/5 year average) :

| Sl. No. | Power station | Installed capacity (MW) | Generation (MU) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 1996-97 | 1997-98 | 1998-99 | 1999-90 | 2000-01 | 5 year average |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. | Bhaba | 120.0 | 554 | 542 | 697 | 570 | 496 | 572 |
| 2. | Bassi | 60.00 | 272 | 314 | 333 | 260 | 262 | 288 |
| 3. | Giri | 60.00 | 238 | 246 | 280 | 203 | 204 | 234 |
| 4. | Andhra | 16.95 | 80 | 36 | 28 | 41 | 38 | 44 |
| 5. | Baner | 12.00 | 28 | 46 | 47 | 33 | 35 | 38 |
| 6. | Gaj | 10.50 | 22 | 52 | 43 | 41 | 47 | 41 |
| 7. | Binwa | 6.00 | 35 | 41 | 37 | 26 | 30 | 34 |
| 8. | Thirot | 4.50 | 6 | 12 | 3 | 9 | 9 | 8 |
| 9. | Ghanvi | 22.50 | — | — | — | — | 11 | — |
| 10. | Gumma | 3.00 | — | — | - | — | 4 | — |
| 11. | Nogli | 2.50 | 4 | 2 | 0 | 6 | 1 | 3 |
| 12. | Rongtong | 2.00 | 2 | 3 | 2 | 2 | 2 | 2 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| 13. | Sal-II | 2.00 | — | — | — | 1 | 6 | 4 |
| 14. | Chaba | 1.75 | 7 | 9 | 9 | 7 | 5 | 8 |
| 15. | Rukti | 1.50 | 2 | 2 | 2 | 2 | 1 | 2 |
| 16. | Chamba | 0.45 | 1 | 1 | 1 | 1 | 1 | 1 |
| 17. | Killar | 0.30 | 0 | 1 | 1 | 1 | 1 | 1 |
| 18. | Billing* | 0.20 | 0 | — | — | — | — | — |
| 19. | Shansha | 0.20 | 0 | — | — | — | — | — |
| 20. | Bharmaur* | 0.02 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21. | Holi | 3.00 | — | — | — | — | — | — |
| 22. | Bhaba Augmentation | 3.00 | — | — | — | — | — | — |
| | **Gross Generation** | | **1252** | **1306** | **1484** | **1201** | **1153** | **1279** |

**Figures have been rounded off to the nereast integar and as a result generation at some of the smaller plants appears as zero whereas in reality some generation would be achieved.*

4.22 The Commission has approved gross generation of 1333 MU based on the five year average of 1276 MU for the existing stations and addtional generation at new plants of Ghanvi, Gumma and Holi of 32 MU, 14 MU and 8 MU respectively.

4.23 Auxiliary consumption of 6 MU as proposed by the Board has been approved.

4.24 The net generation at the Boards power plants is thus approved at 1327 MU during the FY 2001-02.

**Power purchase :**

4.25 The Board has projected net power purchase requirement of 2567 MU. This is based on the projected sales of 3158 MU transmission and distribution loss of 18.96%, resultant energy requirement of 3897 MU and net generation at the Board's station of 1330 MU. Gross power purchase requirement is estimated to be 2654 MU.

4.26 The Commission has, however, approved the net power purchase of 2518 MU based on the approved sales of 3154 MU, transmission and distribution loss of 17.96%, resultant energy requirement of 3845 MU and net generation at the Board's station of 1327 MU. Gross power purchase requirement approved is **2605 MU.**

**Cost elements :**

4.27 The following paragraphs discuss the Commission's analysis and approval on each of the elements of the revenue requirment.—

**Power purchase cost :**

4.28 The Board has projected power purchase cost of Rs. 361.46 crores based on purchase of 2654 MU.

4.29 The quantum of purchase and the price from different stations is proposed on the basis of past trends.

4.30 The Board has projected the cost of 12% power available free to GoHP from Baira Siul, Chamera, Malana and PSEB Shanan share at Rs. 1.25 per kWh based on the current

arrangement whereby the Board is required to pay to GoHP for this power at the tariff applicable to the minimum domestic slab. An assumption has been made that the tariff for minimum domestic slab of Rs. 1.25 per kWh as proposed by the Board shall be approved by the Commission.

4.31 The proposal of the Board was analysed in detail. The Commission is not convinced as to the projections of the quantum and the price of purchase of power. The Commission has recalculated the quantum of purchase as well as the rate on the following basis.

(*i*) The quantum of purchase from hydro stations on the basis of past trends

(*ii*) The quantum of purchase from thermal stations on the basis of merit order despatch

(*iii*) The rate for each of the stations has been calculated as follows;

(*a*) The actual fixed cost for FY 20001-02.

(*b*) The actual variable cost and fuel adjustment for April 2001 for estimating the variable component of the cost.

4.32 The Commission is concerned with the current *ad hoc* and distorted nature of arrangement between the Government of Himachal Pradesh and the Board for the transfer of free power available to the former. The Commission is of the considered opinion that the tariff for transfer of power from the Government to the Board is in the nature of wholesale supply of electricity. Section 22 of the ERC Act confers upon the Commission an unequivocal power to detemine the tariff for the wholesale supply. **The Commission hereby directs that an appropriate petition for determination of tariff for wholesale supply of power from the Government to the Board be filed at the earliest.** The tariff must be based on the principle of cost as specified under Section 29 of the ERC Act. Further, linking of the tariff for wholesale supply with tariff for domestic consumers or any other retail consumers distorts its structure and also creates difficulties in rationalizing the retail tariff structure.

4.33 For the purpose of current tariff petition, the Commission has allowed Rs. 0.70 per kWh for this trade off at the tariff applicable to the minimum domestic slab. Determination of the tariff for the minimum domestic slab is discussed in Chapter-5.

4.34 **Based on the above rationale, total power purchase cost of Rs. 332.39 crores corresponding to gross power purchase of 2605 MU is approved.** The following table compares the projections made by the Board and the approval of the Commission.

Table 4.3* : Power purchase for FY 2001-02 (proposed/approved) :

| Sl. No. | Station | HPSEB's proposal | | | Commission's approval | | |
|---|---|---|---|---|---|---|---|
| | | Purchase (MU) | Rate (Rs./kWh) | Total Cost (Rs. Crores) | Purchase (MU) | Rate (Rs./kWh) | Total Cost (Rs. crores) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **1.** | **BBMB :** | | | | | | |
| | (*a*) Old HP | 44 | 0.25 | 1.10 | 44 | 0.25 | 1.10 |
| | (*b*) NewHP | 142 | 0.00 | 0.00 | 123 | 0.16 | 1.97 |
| | (*c*) BSL | — | — | — | — | — | — |
| | (*d*) Dehar | 79 | 0.28 | 2.21 | 79 | 0.28 | 2.21 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| 2 | **NHPC :** | | | | | | |
| | (*a*) Baira Siul : | | | | | | |
| | (*i*) At cost | — | — | — | — | — | — |
| | (*ii*) Free power | 94 | 1.37 | 12.88 | 74 | 0.82 | 6.06 |
| | (*iii*) Chamera Cons | — | — | — | — | — | — |
| | (*b*) Chamera-I : | | | | | | |
| | (*i*) Free power | 258 | 1.37 | 35.35 | 258 | 0.82 | 21.15 |
| | (*ii*) Purchase | 0 | 0.00 | 0.00 | 44 | 2.05 | 8.95 |
| | (*c*) Salal-II | 33 | 0·60 | 1.98 | 33 | 0.70 | 2.31 |
| | (*d*) Uri | 50 | 3.80 | 19.00 | 50 | 3.26 | 16.31 |
| | (*e*) Tanakpur | 14 | 1.64 | 2.30 | 14 | 1.40 | 1.96 |
| 3. | **PSEB :** | | | | | | |
| | (*a*) Shanan Share | 53 | 0.65 | 3.44 | 53 | 0.38 | 2.03 |
| | (*b*) Thein free power | 70 | 1.36 | 9.52 | 70 | 0.82 | 5.74 |
| | (*c*) Purchase | — | — | — | — | — | — |
| 4. | **UPSEB :** | | | | | | |
| | (*a*) Share | 480 | 0.35 | 16.8 | 480 | 0.35 | 16.8 |
| | (*b*) Purchase | — | — | — | — | — | — |
| 5. | **HVPN** | — | — | — | — | — | — |
| 6. | **Rihand-I** | 288 | 1.55 | 44.64 | 290 | 1.52 | 44.2 |
| 7. | **Singrauli** | — | | | 88 | 1.05 | 9.20 |
| 8. | **Unchahar-I** | 49 | .1.97 | 9.65 | 71 | 1.92 | 13.62 |
| 9. | **Unchahar-II** | 72 | 2.11 | 15.19 | 32 | 2.44 | 7.89 |
| 10. | **Unchahar-III** | — | | | 37 | 2.44 | 8.91 |
| 11. | **Anta-I** | 122 | 1.52 | 18.54 | 129 | 1.49 | 19.23 |
| 12. | **Auriya-I** | 200 | 1.90 | 38.00 | 214 | 2.02 | 43.39 |
| 13. | **Narora** | 80 | 2.45 | 19.60 | 89 | 2.49 | 22.17 |
| 14. | **Western Grid** | — | — | — | — | — | — |
| 15. | **Dadri Gas** | 180 | 1.65 | 29.7 | 157 | 2.48 | 39.11 |
| 16. | **Dadri thermal** | — | — | — | 29 | 2.26 | 6.54 |
| 17. | **DVB** | — | — | — | — | — | — |
| 18. | **RSEB** | — | — | — | — | — | — |
| 19. | **RAPP** | — | — | — | 30 | 3.00 | 8.86 |
| 20. | **J & K** | — | — | — | — | — | — |
| 21. | **Malana** | 32 | 1.25 | 4.0 | 32 | 0.70 | 2.24 |
| 22. | **Baspa-II** | — | — | — | — | — | — |
| 23. | **Thermal/Grid** | 314 | 2.47 | 77.56 | 85 | 2.44 | 20.66 |
| 24. | **PGCIL** | — | — | — | — | — | — |
| | Total | **2654** | — | **361.46** | **2605** | — | **332.39** |

**The figures for quantum of purchase have been rounded off to the nearest integer. Figures for rate and power purchase costs have been rounded off two decimal places.*

**Employee Cost :**

4.35 The Board has projected employee cost of Rs. 384.57 crores which is stated to have been calculated by increasing basic salary by 3% and Dearness Allowance by 9%.

4.36 The employee costs allocable to the generation, transmission and distribution business are Rs. 25.37 crores, Rs. 15.48 crores and Rs. 343.72 crores respectively.

4.37 The Board has also proposed to capitalize Rs. 42.31 crores out of total employee cost of Rs. 384.57 crores.

4.38 The Commission analyzed the employee cost structure of the Board using the provisional accounts for FY 2001-02. The details are in the table below:

Table 4.4 : Employee cost (Provisional accounts) for FY 2001-02

| Head | Cost for FY 2000-01 (Rs. crores) |
|---|---|
| Basic | 183.73 |
| DA | 69.86 |
| Other components | 71.54 |
| Total .. | 325.13 |

**4.39 The Commission notes with deep anxiety that the employee cost of HPSEB was ludicrously high by any conceivable standards. Compared to the Electricity Boards in other States as will as the national average, the HPSEB employee cost is three times the highest case of Karnataka. The table below provides a comparison of employee cost per kWh of electricity sold proposed by HPSEB vis-a-vis costs approved by a number of State Electricity Regulatory Commissions in the recent past. HPSEB stands out as a sore thumb in the matter of employee cost.**

Table 4.5* : Employee Cost as approved by the various Commissions

| Employee Cost | Rajasthan | AP | UP | Ktka. | Haryana | Delhi* | HPSEB (prop.) |
|---|---|---|---|---|---|---|---|
| Rs./kWh | 0.34 | 0.16 | 0.38 | 0.43 | 0.42 | 0.40 | 1.22 |

**The data relates to FY 2000-01, except for Delhi where the relevant cost is for FY 2001-02.*

4.40 The following explanations were provided by the Board to an enquiry directed from the Commission.

(*i*) The employee cost of HPSEB was higher because of the hill terrain and widely dispersed set of consumers in the State.
(*ii*) Regularization of the daily wage-workers mandated by the Government of Himachal Pradesh.
(*iii*) Impact of pay revision during FY 1988-99 and consequent payment of arrears.

**4.41 The burgeoning difference between the employee cost per kWh of electricity sold in Himachal Pradesh and other states is extremely alarming i. e. of the order of almost Rs. 0.9 per kWh. In other words the tariffs could be lesser by ninety paise per unit if only the Board's employee cost could be contained anywhere nearer to the level of otherstates. The shocking revelation that the employee cost represents more than 40% of the total revenue requirement of the Board is enough to sound the alarm bells and make the Board to sit up and think.**

4.42 The reasons given by the Board above are not even remotly convincing and tenable. The Commission is seized with terrible anxiety on this account and is convinced that unless drastic measures are taken immediately to correct this serious aberration, the Board's financial viability cannot be maintained on sustainable basis. As a first step, the Commission had directed the Board during the course of hearing on September 18, 2001 to submit by March 31, 2002 plans, both short term and long term, for rationalization of existing manpower for improvement in efficiency through scientific engineering resource management, improving and updating the organization strategies and systems and skills of human resources for increased productively. The Commission further observed during the hearing on September 20, 2001 that the petitioner Board should give a very serious and deep thought to the methods for reducing the employee cost as in the opinion of the Commission, the natural attrition was not the only solution to this burning problem.

4.43 The Commission asked the Board to provide an estimate of the burden imposed by the regularization of daily wage-workers as allegedly directed by the Government of Himachal Pradesh. The Board informed that the additional burden of regularization of daily wage-workers during the past three years would be approximately Rs. 36 crores in the FY 2001-02.

4.44 The Commission is of the thoughtful view that the additional burden imposed by the decision of the Government can not be borne by the consumers who are already groaning under the unbearable burden of burgeoning employee cost of HPSEB. Further, the cost of executing work would have been lower if they were carried out by daily rated workmen. The additional cost of regularization of these workmen who cannot be demonstrably justified towards carring out the works and services for the consumers and can not be allowed to be passed through. It would only be fair and just to expect that the cost of regularization be borne by the Government. This would be in keeping with the commercial principles of functioning of the Board as well as the principles of tariff based upon efficient costs. The Commission however has taken a more pragmatic view by considering that some of these workmen would have been required otherwise also and has hence allowed approximately two-third of the additional burden i.e. Rs. 24.12 crores out of total of Rs. 36 crores to be passed on the consumers as one time pay out. This estimation has been made by the Commission without availability of any data and hence should not be quoted as precedent for future. In future, the Commission would not allow pass through of any cost that cannot be demonstrated to have been incurred in a prudent and efficient manner. For the balance Rs. 11.88 crores, the HPSEB can approach the Government of Himachal Pradesh or make it up through efficiency gains.

4.45 The Commission holds that increase of 9% in Dearness Allowance does not reflect the ground reality of the current low inflation levels and DA rates and is much too on the higher side. The Commission has therefore permitted an increase of 3% in the basic salary and 4% in the Dearness Allowance as well as other components.

4.46 The employee cost as calculated by using the approved hike as above is shown in the table below:

Table 4.6 : Employee cost for FY 2001-02 :

| Head | Cost for Fy2000-01 (Rs. crores) | Increase approved (%) | Cost for FY 2001-02 (Rs. crores) |
|---|---|---|---|
| Basic | 183.73 | 3% | 189.25 |
| DA | 69.86 | 4% | 72.65 |
| Othercomponents | 71.54 | 4% | 74.40 |
| Total | 325.13 | | 336.30 |

4.47 The Commission accordingly approves the employee cost of Rs. 324.42 crores i. e. Rs. 336.30 crores less the additional burden of Rs. 11.88 crores on account of non-justifiable amount against regularisation of daily rated workmen.

4.48 The approved employee cost of Rs. 324.42 crores is to be allocated between generation, transmission and distribution businesses in the same proportion as proposed by the Board. The approved employee cost shall therefore be Rs. 21.40 crores, Rs. 13.06 crores and Rs. 289.96 crores respecctively for generation, transmission and distribution businesses.

**Repair and Maintenance (R&M) cost :**

4.49 The Board has proposed a cost of Rs. 21.7 crores with break-up of Rs. 9.5 crores, Rs. 3.4 crores and Rs. 8.8 crores between generation, transmission and distribution businesses respectively.

4.50 A number of intervenors objected to the high R&M cost of HPSEB.

4.51 The Commission noted that the Board has proposed to bring down R & M cost from Rs.22.8 crores during FY 2000-01 to Rs. 21.7 crores for FY 2001-02. This represents a reduction of almost 5%. The Commission appreciates the effect to bring efficiency in the Board's working. For the FY 2001-02 the cost as proposed by the Board on this account has therefore been approved. In future, the Commission would expect that R&M cost is further rationalizced by working towards a benchmarked minimum.

**Administration and General (A&G) cost :**

4.52 The Board has proposed cost of Rs. 16.3 crores with a break-up of Rs. 1.08 crores, Rs. 0.66 crores and Rs. 14.56 crores respectively for generation, transmission and distribution businesses respectively.

4.53 The Commission notes with satisfaction that the Board has proposed to bring down A&G cost from Rs. 20.3 crores during FY 2001-01 to Rs. 16.3 crores for FY 2001-02. This represents a reduction of almost 20%. The Commission appreciates the effect to bring about efficiency in the Board's working. For the FY 2001-02, the cost proposed by the Board on this account has accordingly been approved. In further, the Commission would expect the Board to further bring down the cost to a benchmarked minimum.

**Depreciation :**

4.54 The Board has calculated the depreciation to be charged at an average rate of 2.5% per annum. Thisdepreciation of Rs. 11.64 crores, Rs. 6.39 crores and Rs. 13.99 crores is proposed to be charged for generation, transmission and distribution businesses respectively.

4.55 The proper way of charging depreciation would be to apply the rates prescribed by the Government of India for different assets on the relevant asset base of the Board.

4.56 Since the Board has not produced the itemwise fixed asset register (FAR), it is not possible to calculate the depreciation on the basis of the depreciation rates prescribed in Electricity (Supply) Act, 1948.

4.57 In the absence of required data, the Board has used an average rate of 2.5% on *ad hoc* basis for calculation of the depreciation amount.

4.58 The Commission has perused the prescribed rates for diffierent kinds of assets by the Government of India under Sub-Section 2 of Section 43(A) of the Electricity (Supply) Act, 1948.

It is observed that the applicable rate for hydroelectric plants for plant and machinery part is 3-4% while that for civil works is about 2%. The rate for transformers as well as switchgears is 7.84%. For lines it varies from 5.27% to 7.84% while that for meters is 12.77%. An average rate of 4.0% should thus be a fair representative of the rate on overall assets of the HPSEB, which comprise mainly of these two types of assets. The Commission also perused the average depreciation rate applied by a number of other SEBs and found that most of them were charging depreciation rate of 4-5%.

4.59 The Commission, following the above analysis, has arrived at the considered view that a depreciation rate of 2.5% does not adequately reflect the amount of reserve required for creating new assets and replacing the existing assets as and when required. If the consumers are to be supplied progressively with improving quality of service, adequate capital should be available with the Board for undertaking required investments.

**4.60 The Commission has, therefore, calculated the depreciation for the FY 2001-02 by applying an average rate of 4.0% per annum. The depreciation charges for the generation, transmission and distribution businesses are accordingly approved as Rs. 18.62 crores, Rs. 10.21 crores and Rs. 22.38 crores respectively.**

**4.61 It is, however, stressed that the above average depreciation rate of 4.0% is applied as an interim mechanism and should not be treated as a precedent. The Commission during the technical meeting conducted with the Board on July 10,2001 highlighted that the Fixed Assets Register was a critical information which permits the consumers to examine and verify that the assets have been created prudently and are being used efficiently. The Commission directs that the circle-wise Fixed Assets Register be made available along with relevant details and accurate break-up of the fixed assets by March 31,2002. Accordingly, the HPSEB would apply the prescribed rates in the future filings.**

**Interest and finance cost :**

4.62 The Board has proposed total interest and finance related cost of Rs. 132.49 crores with a break-up of Rs. 48.98 crores, Rs. 26.23 crores and Rs. 57.28 crores between generation, transmission and distribution.

**4.63. The Commission has accepted the proposal of HPSEB and a total of Rs. 132.49 crores is accordingly approved.**

4.64. A part of the approved interest and finance charges is to be capitalized as discussed in the next sub-section.

**Expenses capitalized :**

4.65 The Board has proposed capitalization of Rs. 42.31 crores of employee related costs. None of the other costs is proposed to be capitalized.

4.66 The Commission's inquiry as to the reasons for not proposing to capitalize other expenditure, especially the interest related costs elicited the Board's reply that the interest charges were not proposed to be capitalized as per the letter of December 30,1986 from Central Electricity Authority (CEA) to the effect that the entire interest cost may be charged by the State Electricty Boards to the revenue account.

4.67 On perusal of the said letter it was observed that it was valid till the end of Seventh Plan period only. The Commission inquired from the Board if any clarification to the extension of the said provision were obtained from the CEA. The Board stated that it has not sought any clarifications on this account from the CEA.

4.68 The Commission also examined the accounting policies of the HPSEB as set out in the Commercial Accounting Manual Golumn-I. Part-I (1998). The following provisions are incorporated therein.

(*i*) Commissioning of Assets (Paragraph 2.42 at page 93)—All capital expenditure shall be accounted through capital-works-in-progress accounts. On commissiong of assets, the expenditure shall be transferred to the appropriate fixed assets account. Transfer from capital work-in-progress accounts to fixed asset accounts is referred to in this section as 'Capitalization of Assets'. The accounting polices prescribed for capitalization of assets are laid down in the following paragraphs:

(*ii*) Capitalization of Interest on funds utilised at construction stage (Paragraphs 2.93 to 2.97 at page 102)-Every year, a portion of the interest payable on the interest bearing borrowings which relate to financing of capital assets at construction stage *i.e.* till the point of commissioning of assets shall be computed in the manner prescribed in the paragraph 1.42 of Annexure-V and, if so directed by Central Government be capitalized. The amount of interest so capitalized shall be reduced from the amount of interest for the year and only the balance amount shall be chargerable to the revenue account for the year.

4.69 It is evident from the above that the existing accounting policy of the Board provides for capitalization of interest expenses.

4.70 On investingating the accounts of the Board for the last few years, the following details were revealed in the context of capitalization of interest and other expenditure.

Table 4.7: Interest and other expenses capitalized (Rs. crores):

| Financial Year | Interest capitalized | Other Expenses capitalized | Total | % other Expenses capitalized | Capital works in progress |
|---|---|---|---|---|---|
| 1997-98 | 21.95 | 52.52 | 74.5 | 6.9% | 761.7 |
| 1998-99 | 29.71 | 61.8 | 91.5 | 6.9% | 892.7 |
| 1999-00 | 43.83 | 71.91 | 115.7 | 6.8% | 1058.2 |
| 2000-01 | 49.15 | 76.06 | 125.2 | 7.0% | 1081.3 |

4.71 The above figures clearly show that the Board had been regularly capitalizing interest as well as "other expenditure". Infact, it has been established that in Board had been capitalizing approximately 7% of the capital works in progress every year.

4.72 The Commission has therefore come to the conclusion that the Board has erroneously not included the capitalization of "other expenditure".

4.73 The Board was again requested to provide the details of the interest and other expenditure proposed to be capitalized. In a meeting called by the Commission and attended by Member (Finance and Accounts) and Member (Operations) of the Board on Orcober 8,2001, it was explained to the Commission that the Board proposed capitalize Rs. 56 crores of interest expenses during FY 2001-02. For the "other expenditure", it maintained that Rs. 42.3 crores has been proposed to be capitalized in the tariff petition.

4.74 **The Commission has accordingly approved capitalization of Rs. 56 crores of the interest expenditure.**

4.75 A number of generation, transmission and distribution schemes are currently under execution. The provisional accounts of the Board mention the capital works in progress during FY 2000-01 to be Rs. 1081 crores. Further, new schemes worth Rs. 145 crores expected to be undertaken as per the affidavit filed by the Board on October, 3, 2001. The "capital works in progress" (CWIP) have been increasing in the last four years and no reasons have been given to demonstrate that they would be lower in FY 2001-02. The Commission is thus of the view that the total capital works in progress during FY 2001-02 would be atleast as high as in FY 2000-01. Applying a rate of 7 % of Capital Works in Progress to estimate the other expenses capitalized, as has been used by the Board in the past, would lead to capitalization of more than Rs. 76 croes for "other expenses" instead of Rs. 42.3 Crores during FY 2001-02. **The Commission has however taken a conservative view and approved capitalization of an amount equal to that capitalized by the Board during FY 2000-01 i.e, Rs. 76 crores of "other expenses" during FY 2001-02.**

4.76 **The total expenditure approved to be capitalized is thus Rs. 132 crores, including capitalization of interest of Rs. 56 crores and capitalization of other expenses of Rs. 76 crores.**

4.77 **The Commission would like to emphasize here that capitalization of expenses related to creation of capital assets is a standard accounting policy reflecting the actual nature of expenditure. If a particular expenditure is used for creation of capital assets, which will be utilized over a number of years, the economic rationale dictates that such expenditure be amortized over the life of the asset. This reflects the true value of the expenditure and retruns the capital to the investors in the form of depreciation and returns every year. Such a systems is fair to both the investors as well as the consumers. Amortization of capital expenditure in a single year as revenue expenditure would be unequitable because under such a system the current consumers would subsidize the future consumers who would not have to bear the cost related to the creation of these assets.**

4.78 It must be understood that the Commission has only transferred the expenditure from revenue account to the capital account to reflect the nature of the expenditure. Such a transfer does not hurt the Board in the least. On the contrary it helps the Board through generation of return on the investment, which would have otherwise not been possible. The treatment of capitalization as provided by the Commission is consistent with the genrerally accepted accouting practices (GAAP) as the policy adopted by the Board.

**Return on assets :**

4.79 The Board has calculated the return on net assets as provided under Section 59 of the Electricity (Supply) Act, 1948. This amount is Rs. 27.92 croes with a breakup of Rs. 15.47 crores. Rs. 8.28 crores and Rs. 4.17 crores respectively between generation, transmission and distribution businesses.

4.80 The Board has also calculated the return (15.5 % on capital base) as would be available to a licensee under Schedule VI of the E (S) Act. It has requested that the return be made available to it as calculated under the methodology prescribed in Schedule VI of the E (S) Act.

4.81 **The Commission has given serious consideration to the request of the Board. The E(S) Act is very clear in its treatment that the return as prescribed under Schedule VI is to be made available to licensees. The difference between treatment of SEBs and the licensees in trems of the return provided was a deliberate attempt to distinguish between the SEBs which were perceived to be public utilities and the licensee who were private sector entities. In the emerging environment of reform, independent regulation and commercial functioning, it would be fair to provide level playing fields both to the SEBs and the licensees. The ERC Act also permits the Commission to deviate from the principles detailed under the E (S) Act. Much as the Commission may like to consider a deviation from the statutory rate of return, it has elected not to agree to the proposal of the Board for the current year due to the following reasons:—**

(i) **The much hyped Memorandum of Understanding between the Government of Himacha Pradesh and the Government of India is but an expression of intent which has yet to be**

translated in terms of rengineering and redesign of the business processes to bring about demonstrable improvements in key performance measures. The improvements, if any, may be visible only from the next fiscal year. It would thus be unfair to burden the consumers with additional return *without corresponding increase in the efficiency and the* quality parameters.

(ii) The mindests have yet to change and essence of commercial working yet to prevade and percolate through the various hierarchical levels of the Board. To bring up and build such a scenario, the Board would need to unbundle its cost structure and simulate conditions for internal competition. The Commission has directed the Board to complete both these tasks by the next filing. The Commission would consider higher rate of return when the Board is able to demonstrate that these conditions have been satisfactorily achieved.

4.82 A return of 3% on the next fixed assets of Rs. 930.76 crores, as stipulated in Section 59 of the E (S) (Act), 1948, has therefore been approved for FY 2001-02. The breakup between generation, transmission and distribution businesses would be Rs. 15.47 crores, Rs. 8.28 crores and Rs. 4.47 crores respectively as proposed by the Board.

4.83 The Commission would use this opportunity to bring to the notice of the Board the abnormally high level of capital works in progress (CWIP) amounting to almost Rs. 1100 crores as compared to the next fixed assets of Rs. 930.76 crores. Does it mean that either the projects undertaken by the Board are having gross overruns on time and cost or that the completed projects have not been capitalized resulting in loss of return on the capital employed by the Board ? Both these situations are untenable and damaging. *The Board is directed to undertake an investigation of the* amount reflected in the capital works in progress account and provide a report to the Commission by March 31,2002.

**Revenue *Requirement* :**

4.84 The Commission herewith approves the Annual Revenue Requirement (ARR) after incorporating the above changes, including the return on assets, as Rs. 775.34 crores against the projec*ted* ARR of Rs. 940.10 crores. The table below summarizes the cost projected by the Board *vis-a-vis* the approval of the Commission on each of the elements of the revenue requirement.

Table 4.8* : Revenue requirement (HPSEB Proposal/Commission's approval) for FY 2001-02:

| Sl. No. | Head | Cost (Rs. crores) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Generation | | Transmision | | Ditribution | | Total | | Difference |
| | | HPSEB | HPERC | HPSEB | HPERCH | PSEB | HPERC | HPSEB | HPERC | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1. | Repair & Maintenance. | 9.50 | 9.50 | 3.39 | 3.39 | 8.77 | 8.77 | 21.66 | 21.66 | 0.0 |
| 2. | Employee Cost. | 25.37 | 21.40 | 15.48 | 13.06 | 343.72 | 289.96 | 384.57 | 324.42 | —60.15 |
| 3. | A & G Expenses. | 1.08 | 1.08 | 0.66 | 0.66 | 14.56 | 14.56 | 16.30 | 16.30 | 0.0 |
| 4. | Deprecia-tion. | 11.64 | 18.62 | 6.38 | 10.21 | 13.99 | 22.38 | 32.01 | 51.22 | 19.21 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| 5. | Interest and finance. | 48.98 | 48.98 | 26.23 | 26.23 | 57.28 | 57.28 | 132.49 | 132.49 | 0.0 |
| 6. | Miscellaneous. | 0.30 | 0.30 | 0.20 | 0.20 | 0.50 | 0.50 | 1.0 | 1.0 | 0.0 |
| 7. | Less : Expense to be Capitalized. | | | | | | | —42.31 | —132.06 | —89.75 |
| | Sub-Total .. | **96.87** | **99.89** | **52.34** | **53.75** | **438.82** | **393.46** | | | |
| 8. | Power Purchase. | | | | | | | 361.46 | 332.39 | —29.07 |
| 9. | Calculation Mistake. | | | | | | | 5.0 | 0.0 | 5.0 |
| 10. | Return on the Net Fixed Assets. | 15.47 | 15.47 | 8.28 | 8.28 | 4.17 | 4.17 | 27.92 | 27.92 | 0 0 |
| 11. | **Total** .. | **112.34** | **115.36** | **60.62** | **62.03** | **2.99** | **397.62** | **940.10** | **775.34** | **—164.76** |

******All figures have been rounded off to two decimal places.*

**Cost of Supply :**

4.85 Based on the above Annual Revenue Requirement (ARR), the Commission proceeded to calculate the cost of supply. Since relevant details had not been provided by the Board to build a detailed cost of supply model, the Commission by making assumptions proceeded to calculate the cost of supply at the transmission or the high voltage (66 kV and above) end and the distribution or the low tension end (below 66 kV). It is important to note that this cost of supply is based on assumptions and is hence inherently provisional. The cost of supply as worked out by the Commission is given in the table herebelow.

Table 4.9 : Cost of supply approved for FY 2001-02 :

| | | Generator busbar | Transmission level | Distrtbution level | Average |
|---|---|---|---|---|---|
| Cost of supply | Rs./kWh | 1.10 | 1.30 | 2.84 | 2.46 |

**Bulk Supply Tariff :**

**4.86 The Bulk Supply Tariff, i.e. the tariff at the transmission level, as calculated above is Rs. 1.30 per kWh. The Commission approves this builk supply tariff for FY 2001-02.**

**4.87 The Bulk Supply Tariff will be used by the Board for the purpose of internal accounting between the transmission and distribution businesses only. It will currently not be made applicable to retail consumers but the Commission would review this decision during the next tariff filing to be made by the Board.**

Subsidy from Government of Himachal Pradesh .

4.88 The Commission, through its letter dated September 4,2001, (attached at Annexure-4.1) highlighted to the Government of Himachal Pradesh that the entire revenue gap if passed through to the consumers is likely to result in tariff shocks and unbearable burden on the consumers. Further, the fact that during the reform transition period, the reforms have been supported by almost all State Governments by extending subsidy on reducing scale to the utilities to meet the deficit until the tariffs are brought up in a phased and gradual manner to reflect the efficient cost of supply was also brought to the notice of the State Government. In view of these facts the Commission suggested to the Government of Himachal Pradesh that it may consider extending support to the extent of Rs. 84 crore during the financial year 2001-02 by placing the amount to be collected by sale of fee power (Rs. 56.75 crore) and electricity duty (Rs. 28 crore) at the disposal of the Board to meet part of deficit of Rs. 271 crore.

4.89 The Commission also asked the Government to represent its case as a part of the public proceedings on September 20,2001. Additional Secretary to the Government, Department of MPP & Power, GOHP who attended the hearing however deposed that the matter with regard to subsidy was under the active consideration of the Government and prayed for additional time of three weeks for the Government to firm up its views on the subject. The application for extension in time was opposed by the petitioner HPSEB on grounds of possible delay in tariff order. After careful consideration of the request the Commission granted time till October 3, 2001 to the Government to prepare and submit its response.

4.90 The State Government through letter dated October 4,2001, informed the Commission that the reply of the Government would be communicated latest by October 15,2001.

4.91 The letter dated October 23,2001 indicating the response of the Government was finally received on October 27,2001 on the eve of the release of the tariff order. A copy of this letter is attached at Annexure-4.2. The Government has indicated that in view of the subsidies already made available and the financial situation of the Government it is not possible to commit any further budgetary support to HPSEB. following points have been raised in the letter:

(i) The Government is already providing a subsidy of Rs. 188 crores comprising of Rs. 36 crores worth of 12% royalty being waived for hydro projects under the control of HPSEB, subsidy of Rs. 42 crores on account of lower rate being charged for free power being made available from other hydro projects and an interest subsidy to the tuneof Rs. 110 crores.

(ii) The burden on account of regularization of employees will have to be borne by the HPSEB and it can do so suitably reorganizing its manpower deployment and increasing its efficiency.

(iii) As a part of the tariff setting exercise, the SERC should carry out a normative exercise to assess the receipts and expenditure of the HPSEB and assume necessary efficiency based improvements compared to the present position. That any deficit still left after the normative exercise suggested should be taken care of through appropriate tariff formulation to various categories of consumers.

4.92 It is evident from the above response that no additional subsidy support will be available from the Government. The concerns regarding efficiency considerations have already been internalized in the calculations made by the Commission as explained in the preceding paragraphs.

**Revenue Gap :**

4.93 The revenue gap, at the level of existing tariff, assuming the other income to be at the same level as provided in the provisional accounts of the Board for FY 2009-01, *i. e.*, Rs. 32.24 crores, is portrayed in the table hereunder.

Table 4.10: Revenue gap at level of existing tariff for FY 2001-02:

| | HPSEB (Rs. crores) | HPERC (Rs. crores) | Difference (Rs. crores) |
|---|---|---|---|
| **(1) Revenue requirement** | **940.10** | **775.34** | **—164.76** |
| **(2) Income:** | | | |
| (*a*) Sale of power within the State | 480.76 | 478.15 | —2.61 |
| (*b*) Outside the State | 188.28 | 188.28 | 0.00 |
| (*c*) Other income | 0.00 | 32.24 | 32.24 |
| **Total of 2** .. | **669.04** | **698.67** | **29.64** |
| **Net Gap (1—2)** .. | **271.06** | **76.66** | **—194.40** |

4.94 **The net revenue gap at the existing tariff is thus estimated to be approximately Rs. 77 crores.**

4.95 The measures approved by the Commission to meet the revenue gap are discussed in Chapter 5 of the tariff order.

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ANNEXURE 4.1

**HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION**

KEONTHAL COMMERCIAL COMPLEX, KHALINI, SHIMLA
HIMACHAL PRADESH

**Tel No.: 0177-227263** *Fax. No.*: 0177-227162

**HPERC/ED/031/AM/-1408** 4*th September*, 2001

**TIME BOUND**

**OUT TODAY**

**IMMEDIATE**

**To**

**The Chief Secretary-cum-Secretary Power,**
**Government of Himachal Pradesh,**
**Shimla-171002.**

**Subject.—Petitions under section 22 of ERC Act, 1998 in matter of proposed Distribution and Retail Supply Tariff and Transmission and Bulk Supply Tariff.**

Sir,

Himachal Pradesh State Electricity Board (HPSEB) filed a tariff petition on 30th April, 2001 before the commission for determination of distribution and retail supply tariff along with Annual Revenue Requirement (ARR) for the year 20001-2002. HPSEB also filed another petition on 14th August, 2001 for Determination of Transmission and Bulk Supply Tariff. The commission staff had detailed discussions with HPSEB's officers with regard to the data furnished by HPSEB for these two petitions. Based upon these discussions, HPSEB has now revised the ARR and as per the present tariff the net revenue gap, after allowing 3% rate of return, comes to Rs. 271.061 crore.

HPSEB has indicated the reasons for the huge revenue gap as under :—

(*i*) Himachal Pradesh Government is not providing any tariff subsidy despite the fact HPSEB is supplying power to some of the consumers at a rate much lower than the cost of supply.

(*ii*) For the energy received by HPSEB against H. P.s' free share in Chamera-II, Baira Suil, Thien and Malana Hydro Electric Projects, the Himachal Pradesh Government charges from the Board the lowest domestic rates. The Board expects to receive about 454 million units of energy from these power stations during the current financial year and has to make payment of Rs. 56.75 crore to Himachal Pradesh Government at a rate of Rs. 1.25 per unit, which is the proposed minimum slab for Domestic Tariff. The Board receives this power at Generation bus bars and pays wheeling charges, where applicable, besides bearing the Transmission and Distribution losses before supplying this power to the various consumers.

(*iii*) HPSEB has to bear an additional expenditure of Rs. 35.52 crore during the current financial year on account of regularization of daily rated workmen as per the policy guidelines of Himachal Pradesh Government to regularize all the daily wage workers, who have completed 8 years of service.

**Although in the Memorandum of Understanding made between Ministry of Power, Government of India and Government of Himachal Pradesh for setting out the reform measures in Himachal Pradesh it has been stated that the Government of Himachal Pradesh is not in a position to provide subsidies for consumption of electricity yet the Commission feels that if the entire revenue gap if passed through to the consumers is likely to result in rate shocks and unbearable burden on the consumers. During the Reform Transition Period, the reforms have been supported by almost all the State Governments by extending subsidy on reducing scale to the utilities to meet the deficit until the tariffs are brought up in a phased and gradual manner to reflect the efficient cost of supply. The Commission suggests that the Government of Himachal Pradesh may also consider extending support to the extent of Rs. 84 crore during the financial year 2001-02 by placing the amount to be collected by way of free power (Rs. 56.75 crore) and electricity duty (Rs. 28 crore) at the disposal of the Board to meet part of deficit of Rs. 271 crore.**

The commission would like to know whether Himachal Pradesh Government would provide subsidy to HPSEB so that the tariff for various classes of consumers are kept with in the tolerable limits. If so, the details of the same may be supplied to the commission before 18th September, 2001.

The Commission has already published both the petitions, referred to Para (1) above, in the leading newspapers and has invited objections from the public. The Commission shall hear

the views of the various stakeholders in the matter in the hearings proposed to be held in different locations as per the following schedule :—

| Date | Time | Vanue |
|---|---|---|
| 18th, 19th & 20th September, 2001 | 1030 to 1630 hrs. | Keonthal Commercial Complex, Khalini, Shimla. |
| 21st September, 2001 | 1030 to 1630 hrs. | Timber Trail, Parwanoo. |
| 22nd September, 2001 | 1030 to 1630 hrs. | D. C. Office (Committee Room), Nahan. |
| 24th September, 2001 | 1030 to 1630 hrs. | Circuit House, Paonta Sahib. |
| 26th September, 2001 | 1030 to 1630 hrs. | Settlement Officer's Court Room, Dharamshala. |

**An authorised representative of the Himachal Pradesh Government may please be deputed to attend the afternoon session of the hearing to be held on 20th September, 2001 between 1430 to 1630 hrs. to explain the view point of Himachal Pradesh Government especially with regard to the tariff subsidy.**

Yours faithfully,

Sd/-
Executive Director (TFA).

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ANNEXURE-4.2

MOST IMMEDIATE

No. MPP-A (7)-3/2000,
Government of Himachal Pradesh
Department of MPP and Power.

From :

The Commr.-*cum*-Secretary (Power) to the
Government of Himachal Pradesh.

To

The Chairman,
Himachal Pradesh Electricty Regulatory Commission,
"Keonthal Commercial Complex",
Khalini, Shimla-171 002.

Dated, Shimla-171 002, the 23rd October, 2001.

Subject.—**Petitions under Section 22 ERC Act, 1998, in matter of Proposed Distribution and Retail Supply Tariff and Transmission and Bulk Supply Tariff.**

Sir,

In continuation of this Deptt's. letter of even number, dated 4th October, 2001, on the subject cited above, I am directed to say that issue raised *vide* your letter No. HPERC/ED/031/AM/1408.

dated 4th September, 2001, have been considered by the Government at length and the following decisions have been taken by the Government on the points raised in your above letter:—

1. **Subsidies and Tariff Setting** :

In reply to para (*i*) of your letter referred to above, it is clarified that the State Government is making available the following subsidies to the HPSEB at present and the contention of the HPSEB that no tariff subsidy is being provided to it is not correct:—

(*a*) No free power royalty is being realized from the HPSEB on account of generation from projects under the control of HPSEB, although the State Government is entitled to 12% free power from all Hydro Electric projects set up in the State of Himachal Pradesh. As a result, on the basis of 1988-89, figures of saleable energy available, after auxiliary consumption from HPSEB's own generation, a subsidy of Rs. 36 crore annually is being made available to HPSEB on this account;

(*b*) Against 352 million units made available by NHPC's, Baira Siul and Chamera-II projects as free power, only 70 paise per unit being charged from the Board by the State Government. At the current average sale price of Rs. 2.01 per unit being realized by the HPSEB, this power is worth Rs. 70 crore. As such, a subsidy of Rs. 42 crores is being made available to the HPSEB annually on this account;

(*c*) The State Government is meeting the entire interest burden on loans of Rs. 7.03 crore raised by the HPSEB in the period from 1994-95 to 1999-2000. These loans have been used to repay the loans taken by HPSEB from the State Government and interest outstanding thereon. This interest subsidy amounts to approximately Rs.110 crore annually;

(*d*) Therefore, an amount of Rs. 188 crore is being provided to the HPSEB as subsidy at present.

In reply to para (ii) it is intimated that the Government is being paid 0.70 paise per unit for the free power and not Rs. 1.25 as stated by the HPSEB. Accordingly, an amount of Rs. 42 crore is being charged less than what its is realizing as average sale price per unit.

(*iii*) As for as the issue of additional expenditure on regularization of daily wages is concerned, in this regard it is intimated that the HPSEB will have to bear this burden on its own and compensate this burden by reorganizing its manpower development and by increasing efficiency.

2. **Issue of Further Subsidies** :

(*a*) In this regard it is intimated that in conducting its tariff setting exercise, the SERC should carry out a normative exercise to assess the receipts and expenditures of the HPSEB and assume necessary efficiency based improvements compared to present position. Any deficit, still left after the normative exercise suggested should be taken care of through appropriate tariff formulations relating to various categories of customers :

(*b*) It is necessary that the receipt and expenditure estimation of the HPSEB are examined on the basis of appropriate norms and bench marked accordingly for arriving at justifiable cost and realisable revenues. In view of the power sector reform guidelines, proper cost/profit centers must be identified and appropriate normative revenue and expenditure allocations made for each. This will enable a view on doing away with certain high cost activities (like certain generating units and pruning of cost elsewhere as well as assuming the right level of receipt generation based on the assessed potential for a unit

(*c*) In view of the level of subsidies already being made available and the financial situation of the State Government, it is not possible to commit any further budgetary support to HPSEB by the State Government.

(*d*) Keeping in view the subsidy of Rs. 188 crore which is being provided to the Board, the State Government shall not be in a position to keep the amount of Rs. 84 crores being realized from free power and electricity duty at the disposal of the Board as suggested by the Commission.

2. Accordingly, you are requested to keep in view the above factors before deciding the tariff petitions of the Board.

3 This issues with the concurrence of Finance Department and the approval of the Competent Authority in the Government.

Yours faithfully,

Sd/-
(S. K. DASH),
*Commissioner*-cum-*Secretary* (*Power*)
*to the Government of Himachal Pradesh.*

## 5. COMMISSION'S TARIFF PHILOSOPHY AND DESIGN OF TARIFF STRUCTURE

5.1 The Commission is mandated to work within the framework of the ERC Act. The Act requires the Commission to be, *inter alia*, guided by the following aspects in the fixation of tariff:

(*i*) that the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency,
(*ii*) factors that would encourage efficiency, economical use of resources, good performance and optimum investments.
(*iii*) the interests of the consumers are safeguarded and at the same time the consumers pay for the use of electricity in a reasonable manner based on the average cost of supply.

5.2 The Commission issued a Concept Paper on Retail Supply Tariff (Draft) in which it discussed the objectives of tariff setting, tariff principles methodologies and key issues involved in determining the retail electricity tariff in Himachal Pradesh on July 31, 2001. The conceptual issues deliberated upon by the Commission with respect to determination of tariff are briefly described below:—

(*i*) Rationalization of the tariff structure on the basis of cost of supply at different voltage levels in order to reduce the cross subsidies over a period of time. The rationalization should not however lead to tariff shocks.
(*ii*) Introduction of time of the day tariff and seasonal tariff to send correct signals to the consumers to adjust their consumption petterns.
(*iii*) Unbundling of the cost and tariff structure of the Board to understand the cost and revenue structure of the different businesses of the entities in the power sector and for any restructuring exercise to be undertaken in the future.
(*iv*) Preserving financial viability of the Board to ensure growth of the industry and to bring improvements in the quality of supply.
(*v*) Simplification and rationalisation of the tariff structure with fewer rates and slabs based on cost of supply to be implemented over a period of time
(*vi*) To ensure that the tariff are fair, just and non-discriminatory.
(*vii*) The need to develop appropriate information and monitoring system to ensure that the process of tariff setting does not get distorted due to lack of information and data.

5.3 HPSEB submitted the proposal for (*i*) Distribution and Retail Supply Tariff, and (*ii*) Transmission and Bulk Supply Tariff for the FY 2001-02 to the Commission. The salient features of the proposed filings are discussed in Chapter 2 of this Order. Before discussing the proposed

tariff schedule and the Commission's analysis, it is appropriate to list the major objections and suggestions received from different consumers on the tariff schedule proposed by the HPSEB :

(*i*) A large number of industrial consumers have vehemently objected to any increase in the tariff for the industrial sector as unsustainable and have pleaded as follows :

(*a*) It will become uneconomical for the industries to operate in Himachal Pradesh, which might force them to close down as industry is passing through a phase of recession due to overall economic downturn.

(*b*) An increase in tariff would wipe out the only source of competitive advantage of economical electricity that is available to industrial consumers based in Himachal Pradesh. All other inputs are expensive due to the disadvantage of being at a larger distance from the source of raw material and the market for finished goods.

(*c*) The high tariff would discourage large industrial houses in setting up new industries or expanding existing industrial units in the State, thereby impedding the industrial growth considerably. Given this scenario, industries would be force to look at the option of relocating their units or install captive power plants.

(*ii*) High level of cross-subsidization in the tariff for domestic consumers at the expense of industry has not been viewed kindly by the industrial consumers. They argued that the State Government must fund the cost of such measures that are based on socio-economic and political considerations. They have further added that this burden should not be passed on to either the utility or other consumers.

(*iii*) General view expressed by a large number of consumers was that the existing tariffs are already very high and there is no justification for any further increase.

(*iv*) Suggestion has been made that the minimum monthly charges should be waived specially for small and medium industry and that the billing should be done on actual energy consumed in order to attract more industrial consumers to the State.

(*v*) Industrial consumers have also argued for time of day metering and a lower night time tariff as an incentive.

(*vi*) Domestic consumers have pleaded that there should be no slab rates and that the Board should provide incentives for higher consumption.

5.4 The Board has also ditaled upon some of the conceptual issues in its tariff petition. These are briefly discussed below :

(*i*) *Single part tariff.*—The Board has proposed a single part tariff structure in its petition. It has, however, recognized that this does not provide the appropriate incentive for effeciency enhancement even though it is easier to administer and understand. The Board has submitted that it will consider the implementation of multi part tariff as soon as its metering infrastructure is upgraded.

(*ii*) *Reactive Power Pricing.*—The Board has not introduced reactive power pricing in this proposal though it proposes to do so in future bulk tariff proposals when its information system is in place for recording the reactive power at the point of delivery.

(*iii*) *Time differentiation.*—The Board has also recognized the effectiveness of a time differentiated tariff regime as an instrument for achieving resoure allocation and consumption. However, it is not sought to be implemented for the current year. The Board has argued that it will progressively try to move towards time differentiated regime as its information systems are upgraded and reliable data is available.

5.5 There are a number of conceptual issues in the tariff design that need to be discussed before analysing the specific proposals for each tariff category. The Commission considers them to be critical in the design of the tariff structure and they are discussed below :—

(*i*) Cost based tariff and reduction of cross subsidies.

(*ii*) Two part tariff structure and minimum guarantee charges.

(*iii*) kVAh based tartff.

(*iv*) Seasonal tariff and time of use tariff.

**5.6 Cost Based Tariff and Reduction of Cross Subsidies :**

The existing tariff structure is not based on the cost of supply. The Commission intends to move in the direction of removing this distortion but this process would, however, have to be graduated to ensure that there are no tariff shocks. In the long run, tariffs would be classified according to cost of supply at different voltage levels. This would mean that the large number of categories and slabs in the existing tariff structure would have to gradually reduced. The Commission, therefore, intends to initiate process by merging some categories as well as the slabs this year. The other implication of a movement towards the cost of supply based tariff regime is to reduce the present level of cross subsidy in the tariff for different consumer categories.

For this purpose the Commission has used only the average cost of supply. This is not the ideal approach, as cost of supply will be different at various voltage levels. However, due to the lack of reliable data the Commission was constrained to adopt this approach. The average cost of supply for FY 2001-02 as calculated by the Commission is Rs. 2.46 per kWh. The cost of supply for Low-Tension consumers would evidently be higher while that for High Tension consumers would be lower.

As is evident from the existing tariff structure Domestic, Agriculture, Small and Medium Industries, Water and Irrigation Pumping and Street Lighting are being cross-subsidized Large Industrial, Non-Domestic and Bulk Supply consumers.

The impact of this cross-subsidized tariff structure has been that Himachal Pradesh, which has a natural advantage in terms of cheap electricity, is gradually losing its attractiveness to retain industries. This is reflected in the decreasing share of industrial consumption in the sale of electricity in the State. This can be seen from the fact that the share of industrial consumption in total sales, which was 51.20% in FY 1995-96, fell to 48.46% in FY 2000-01. The consumption of Large Supply LS(1) declined from 167 MU in FY 1995-96 to 100 MU in FY 2000-01 while the consumption in Medium Industrial Power (MIP) declined from 126 MU to 116 MU during the same period. The overall consumption of industrial consumers in absolute terms declined from 1111 MU in FY 1999-00 to 1069 MU in FY 2000-01. This is obviously a reason for concern not only for the power sector but also for the economy as a whole. The Commission therefore intends through this order, to reverse the trend of using commercial and industrial consumers to cross subsidise other sectors. This is done with the intention to move towards tariffs that reflect the cost of supply. The Commisson strongly believes that a cost based tariff structute promotes efficient and economic investment and consumption. Ensuring that the investments and consumption in the sector are optimum and efficient is a function specifically mandated under Section 22 (1) (*d*) to the Commission under the ERC Act.

In an econmy beset with scarce resources, inefficiency in any account should not be tolerated. Cost based tariff provides a signal, to the consumers of the cost incured due to the supply demanded. In fact, in further the Commission would also consider the application of marginal cost based tariff to reflect the true economic cost imposed on the systems. Application of marginal cost based tariff would, however, require studies to assess the marginal cost. **The Commission has accepted the Board's request for waiver from this requirement for the current year. The Commission would expect complete details in this context in the next tariff petition**

The Commission, however, recognizes that marginal consumers because of their poor socio-economic status may not be able to pay a cost based tariff. Accordingly, the Commission has introduced a separate lifeline slab for families identified under the Antyodya Anna Yojna of the Government of Himachal Pradesh within the domestic category. The Commission believes that under the existing system in place by the Government of Himachal Pradesh to identify the under

privileged classes, these families have been properly targeted and deserve sympathetic consideration. The Commission has therefore not made any change in the tariff for this category. This category has also been exempted from the winter surchare.

**5.7 Two Part Tariff and Minimum Guarantee Charges :**

The existing tariff structure in Himachal Pradesh has no provision for fixed charge in any of the consumer categories. There is, however, a provision for a minimum charge in most of the categories. A rational tariff structure requires a two-part tariff structure incorporating fixed charges to reflect the fixed liabilities on account of power purchase, employee costs, interest ect. Out of the cost of Rs. 332.39 crores approved for purchase of power, Rs. 64.1 crores is on account of fixed cost. Further, employee costs can also be treated as fixed in the short term. It is, therefore, essential that these costs are reflected as fixed charges recovered from the consumers. Ideally, this should be done in proportion to the demand placed by an individual consumer on the system. This is so because the connected load provides a signal of the consumer's load profile and the maximum demand to arrive at the estimates of the consumption. It this facilitates designing of the system to cater to the supply needs of a consumer and is thus a just and fair mechanism for recovering fixed liabilities of the system. Over the years, however, it lost its true meaning and become a potential instrument of harassment to the consumers. The existing data-base on the connected load is also distorted due to these inefficiencies. The Commission has thus not used the criteria of connected load for determining the demand charge except for large industrial consumers where a demand charge based on contract demand has been approved. The Commission has also introduced a consumer service charge for all categories except domestic. The charge has been designed to include the fixed liabilities of the Board and the cost of providing services such as metering, billing and collection. The application to domestic category has been withheld so as to limit the tariff shock to these consumers. The Commission in future would consider extension of consumer service charges to domestic consumers also.

Simultaneously minimum charges have been abolished for all consumer categories. This is because minimum charges act as disincentive for the consumers to conserve energy. It is seen from the information supplied by HPSEB in the tariff petition that the revenue from the Minimum Consumption Charge in Himachal Pradesh is partly and actually declined from Rs. 13.39 crores during FY 1999-00 to Rs. 7.35 crores in FY 2000-01. The provisional accounts for FY 2000-2001 show even lower figures Rs. 1.71 crores for FY 1999-2000 and Rs. 1.86 crores for FY 2000-01. Moreover, no information has been provided on the extent of revenue expected from this charge in FY 2001-02.

**5.8 kVAh Based Tariff :**

Electric power can be completely defined through three parameters, namely, the current, the voltage and the angle between the voltage and the current. As a result, the electric power consists of two components *i. e.* the active power and the reactive power. The active component, called the real power is actually available for productive work while the reactive component oscillates between the load and the source without producing any real output. In order to ensure that most of the power is available as real power, the power factor of the system needs to be maintained at a high value *i. e.* close to unity.

The power factor of the system is governed primarily by the load characteristic and the system configuration (*i.e.* the transmission and distribution system), with the former being the dominant player. Usually the design of the system incorporates elements, such as installation of capacitor banks and transposing of transmission lines, which ensures a high power factor at the system level. Given the system design, the power factor is significantly determined by the load characteristic. *i.e.*, the consumer's load profile. Under the existing tariff structure, there is no incentive for higher power factor but only a disincentive if it falls below 0.9. During the hearings, the industrial consumers made a strong case against this anomaly and requested that incentive for achieving a higher power factor should also be provided.

The Commission found merit in this argument and hence felt that there was a need to provide incentives to induce consumers to operate their equipment at a higher power factor. The Board also derives significant benefit through lower losses and better voltage profile. **The Commission examined this issue and is of the opinion that kVAh based tariff. Which charges the consumers for the total energy consumed by them, the active part of the energy supplied as well as the reactive part of the energy supplied would be appropriate, for the following reasons :—**

(i) kVAh based system is more transparent because it charges for the actual KVAh recorded on the meter of the consumer instead of recording kWh and separately providing rebate/penalty for high/low power factor.
(ii) It reduces the possibility of mistakes as well as that of malpractices.
(iii) It reduces the administrative burden through elimination of the need for calculating power factor.

The Commission has also examined the legal aspect of introducing kVAh based tariff. Section 23 (3) & (4) of the Indian Electricity Act, 1910, permits introduction of such a tariff.

The section states the following :

Quote

(3) *In the absence of an agreement to the contrary, a licensee may charge for energy supplied by him to any consumer:—*

(a) *by the actual amount of energy so supplied, or*
(b) *by the electrical quantity contained in the supply, or*
(c) *by such other method as may be approved by the State Government.*

(4) *Any charges made by a licensee under clause (c) of sub-section (3) may be based upon, and vary in accordance with, any one or more of the following considerations, namely:—*

(a) *the consumer's load factor, or*
(b) *the power factor of his load, or*
(c) *his total consumption of energy during any stated period, or*
(d) *the hours at which the supply of energy is required.*

Unquote

It is very clear and obvious that both clauses (*a*) as well as (*b*) of section 23 (3) are very similar and mean the total delivered energy (kVAh), which includes both the active and the reactive components.

Thus the use of a kVAh tariff is not only technically and economically desirable, but also legally permissible. The Commission has therefore decided to introduce the kVAh based energy charge for large industrial consumers in the state this year. Since it is a new concept and because of the metering requirements it has been decided to restrict this to the Large Industries and its extension to other categories would be considered in the subsequent years. The Commission was assured that all large industrial consumers have tri-vector meters and hence no problem in implementation of kVAh based tariff regime was envisaged.

**5.9 Seasonal Tariff and Time of use Charge :**

Higher demand during morning and evening hours is a typical characteristic of a load curve. Similarly, the demand during different seasons may vary depending on the climatic conditions or other factors. Such higher demand is typically met through peaking stations which are generally

more expensive as compared to the base load stations. In order to reflect the higher cost of supply during the peak load hours it is necessary to include a time of use charge in the tariff structure which would provide correct signals to the consumers and also help the utility in maintaining a better system profile.

The existing supply constraints in Himachal Pradesh do not permit a system where consumers can freely choose their consumption pattern because of the shortages in the peak capacity. Industrial, Water Irrigation and Agricultural pumping consumers are normally not permitted to use electricity during the peak load hours. The present tariff structure, therefore, does not include a generic time of use charge. They can however request for an exemption from the restriction to use electricity during peak load hours. In such cases where exemption is granted, a charge called the Peak Load Exemption Charge (PLEC), is applied. This charge is essentially a form of Time of Use (ToU) tariff with applicability restricted to consumers who are specifically granted exemption from the restriction to use supply during the peak load hours. Under normal circumstances consumers should be free to use electrcity at whatever time they wish and pay for it depending on the cost of supply during the time of use.

Given the physical constraints in the system, it would not be possible to introduce a generic time of use charge that would permit use of electricity without regulation by the consumers during the peak load hours. The Commission would however like to move in this direction and has, therefore, made appropriate changes in the manner in which peak time consumption is charged. The need for physical control and regulation of supply would thus continue in the interim and a consumer wishing to operate during the peak load hours would require a specific exemption. Those who do not have the exemption but are found using electricity during peak load hours have to pay a penalty for violation of the restriction. Under the existing system, this penalty is called the Peak Load Violation Charge. There are a number of distortions in the current system of charging for use of electricity during the peak load hours and for the penalty applied to those found violating the restriction. These issues have been discussed later in this Chapter.

Form the above arguments it is evident that it would be rational to apply a ToU charge for consumption during the peak load hours which should be a part of the tariff structure. On a similar rationale, consumption during the winter months requires purchase from costlier thermal power stations. Accordingly, such consumption should be charged at a higher rate to reflect the higher cost of supply. The Commission has thus approved application of **time of use charge and a winter surcharge** as a part of the tariff structure. Further, it would be rational to provide a concession for electricity consumed during the night hours and, therefore, the Commission has also introduced a **concessional night time rate** for the industrial consumers. This is explained in detail with the discussion on tariff design for the industrial consumers.

**The Commission directs the Board to collect information on the demand from various consumer categories at different times of the day as well as on consumption of energy *during these intervals* as part of the load research study mentioned in Chapter 7. This would facilitate design of a more rational Tol charge. Before such a system can be implemented, it would be necessary to remove the constraints and switch *to a system* where individual consumers can make the choice on their own. The Board should prepare a plan to ensure that contraints in the Transmission and Distribution system are *minimized, i. e., existing bottlenecks should be identified and a time* bound plan *to* overcome these should be prepared and communicated to the Commission. On the generation side also, it would be necessary to identify the periods during which capacity constraints are likely *to occur* and the manner in which the State Load Despatch Centre (SLDC) would ensure that there is no overdrawal of power by the Board from plants outside the state.**

5.10. The major changes introduced by the Commission in the approved tariff structure for the FY 2001-02 are listed below :—

(*i*) Reduction in the cross subsidies to move towards the cost of supply tariff regime.

(*ii*) Two-part tariff structure has been introduced for all consumers except domestic.

(*iii*) Monthly Minimum charge has been abolished for all categories of consumers.

(*iv*) kVAh based tariff has been introduced for the Large Industrial Consumers.

(*v*) Peak load exemption charge (PLEC) and peak load violation charges (PLVC) have been rationalized.

(*vi*) A new category of Non Domestic Non-Commercial Supply (NDNCS) has been introduced and the existing NDLT category has been renamed as Commercial Supply (CS).

(*vii*) Concessional night time tariff has been introduced for consumers under Small and Medium industrial power supply, Large Industrial Power Supply and Water Pumping Supply. Tariff Schedules.

(*viii*) Winter surcharge has been introduced for all consumer categories, except the Antyodaya Anna Yojana Families under the domestic schedule.

(*ix*) Rationalization to tariff structure has been undertaken through the following :—

(*a*) Merger of Small and Medium Industrial power supply into a single categorly SMS.

(*b*) Merger of LS-1 and LS-2 categories into a single category, LS.

(*c*) Reduction of slabs in domestic and merger of all slabs in the commercial category.

(*x*) Quality of supply and service concerns internalised in the tariff order.

5.11. The Commission conducted a meeting with the members of the Board *i.e.* Member (Finance and Accounts) and Member (Operation) alongwith other senior officials on October 8, 2001, to discuss the structural changes in the tariff structure. It was assured by the Board that the changes being considered by the Commission could be implemented with minimum practical problems. The Commission has hence gone forward and hopes that the Board would initiate positive steps to implement them in true spirit. It is Commission's view that these changes would significantly improve the efficiency of the electricity industry and would form a stepping stone to its dynamic and sustainable growth in the future.

**5.12. The tariff schedule proposed by the HPSEB and the Commission's approval is discussed in the following paragraphs. The approved tariff schedule is attached as Annexure 5.1 to this order. The tariff schedule shall be appropriately notified by the Board along with the schedule of general and service charges as well as the standards and benchmarks along with the token compensation as determined by the Commission in Chapeter 6 of this order.**

5.13. The following are the conceptual changes made in Part-I "General conditions of tariff for supply of electricity."

(*i*) Surcharge for late payment has been rationalized by applying a uniform rate of 2% per month proportionately for the number of days for which the payment is delayed beyond the due date specified in the bill and levied on the unpaid amount of the bill (excluding electricity duty/taxes etc.) for all categories.

(*ii*) The Monthly Minimum Charges has been abolished for all categories of consumers. The rebate given in these charges in case of curtailment of supply has been incorporated as token compensation to be provided to the consumers in the Guaranteed Standards approved by the Commission in Chapter 6.

(*iii*) Power factor surcharge has been abolished for categories where kVAh based tariff structure is introduced.

(*iv*) Other changes have been made which are consequential to the tariff rationalization exercise.

5.14. The changes made in the Part-II of the schedule of tariff are described in the following sections.

**5.14.1 Domestic Supply, DS :**

The existing schedule applies to domestic consumers and a number of other organisations such as Religious Places, Govt./Govt. Recognized Educational Institutions, Orphanages, Hostels, Rest Houses, Free Hospoitals and Leprosy Homes run by charity and unaided by the Govt. Anganwari workers training centres and houses for destitute and old people, Sarais and Dharamsalas run by Panchayats and Municipal Committees etc.

The following table depicts the changes proposed by the Board :—

TABLE 5.1. : Tariff for Domestic Supply (Existing/Proposed)

| Description | Energy Charge (paise/unit) | |
|---|---|---|
| Units/Month | Existing | Proposed |
| 0-45 | 70 | 125 |
| 46-150 | 105 | 225 |
| 151-300 | 150 | 225 |
| Above 300 | 225 | 290 |

The changes proposed by the Board result in an increase of Rs. 53.11 crores in the revenue generated from this category representing an increase of 75.42%. The Commission has not accepted the proposal of the Board.

As a first step towards rationalisation of the tariff structure the Commission has reclassified this category to be applicable only to domestic consumers. All other consumers in this category have been shifted to the new category called the Non-Domestic Non-Commercial supply. The tariff determined by the Commission for the Domestic category is set out in the following paragraphs.

The Commission is of the view that while the tariff for domestic consumers needs to reflect the cost of supply in a progressive manner, the marginal consumers need to be protected. The Commission has therefore introudced a **lifeline slab** within the domestic category. It will be applicable to all those consumers who have been identified under the Antyodya Anna Yojna by the Government of Himachal Pradesh. The benefit of the concessional tariff will be available for use of electricity by these families upto a maximum of 45 units per month. In case this limit is exceeded, the normal domestic tariff will apply for the entire consumption.

The present tariff structure includes four slabs in the domestic category. The Board has proposed to merge the slabs of consumption of 46-150 units and 151-300 units. The Commission

considers that inline with the general principle that tariffs should increasingly reflect the cost of supply, consumers above a certain consumption level should pay for such consumption at the cost of supply. **The Commission has therefore decided to merge the slabs of higher consumption, *i.e.* 151-300 units and above 300 units.**

The tariff for different slabs has been revised keeping in view the following considerations :—

(*i*) All consumers should gradually pay the cost of supply.
(*ii*) Tariff shock should be avoided.

The present tariff structure does not include a consumer service charge and the Board has also not proposed the same during the FY 2001-02. The Commission has also not levied any consumer service charge for this category for the current year. In future, however, the Commission intends to introduce a fixed charge so that these consumers also contribute to the fixed liabilities incurred by the Board.

The tariff approved by the Commission for domestic category is as follows :—

TABLE 5.2 : Energy Charges :—

| Description | Energy charge (paise/unit) |
|---|---|
| Units per month | |
| AntyodyaAnnaYojna beneficiaries | 70 |
| **Other consumers** | |
| 0.45 | 85 |
| 46-150 | 130 |
| Above 150 | 240 |

**In the case of Antyodya Anna Yojana beneficiaries the concessional tariff will be available for use of electricity by these families upto a maximum of 45 units per month. In case this limit is exceeded, the normal domestic tariff will apply for the entire consumption.**

**The Commission has also decided that no compounding of energy charge shall be allowed to the consumers except for domestic residential societies with multiple welling units.**

The above tariff changes will bring additional revenue of Rs. 20.02 crores in a full year from the domestic consumers representing an increase of 28.44% over the existing revenue.

The approved tariff will generate total revenue of Rs. 90.43 crores in a full year.

**5.14.2. Non-Domestic Non-Commercial Supply, NDNCS :**

This schedule would be applicable to Govt./Govt. recognized Educational Institutions *viz.* Schools, Universities, I.T.Is., Hostels and residential quarters attached to the Educational Institutions, Religious places such as Temples, Gurudwaras, Mosques Churches, Orphanges Sainik Rest Houses, Working Women Hostels, Anganwari Workers Training Centres and Houses for Destitute and Old People ; Free Hospitals and Leprosy Homes run by charity and un-aided by the Government; Sarais and Dharamsalas run by Panchayats and Municipal Committees or on donations and those attached with religious places.

Under the existing tariff schedule these consumers are included in the domestic category. Clearly the nature of use by these consumers is very different from the domestic class. While

the Commission intends to gradually reduce the number of categories and slabs as a part of the policy to design tariff based on the cost of supply, a new category has been warranted due to special circumstances. This decision is prompted by the distinct nature of service provided by these consumers. This treatment should not, however, be construed as a permanent feature since the Commission intends to gradually move all consumers towards the cost of supply. In fact, the current move of creating a separate category is a first step in this direction whereby the Commission has taken out these consumers from the domestic category which is the most subsidized under the current structure.

The consumer service charge of Rs. 25 per month per consumer has been approved for reasons already explained.

The tariff determined by the Commission for this category is as follows :—

TABLE 5.3 : Consumer Service Charge (Part-1):

| *Description* | *Consumer Service Charge (Rs./month consumer)* |
|---|---|
| All consumers | 250 |

TABLE 5.4 : Energy Charge (Part-2)

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| All consumption | 250 |

The revenue implication of the introduction of the new category could not be worked out because the data on sale of electricity to these consumers is currently not available with the Board. It is, however, clear that the changes approved by the Commission would yield net positive revenue as compared to the revenue generated under the existing tariff where these consumers are treated as a part of the domestic category. The increase in revenue has been estimated to be Rs. 5 crores per annum.

**5.14.3 Commercial Supply, CS :**

The supply to this category is for commercial purposes.

The existing and proposed energy charges are presented in the table below: --

TABLE 5.5(*a*) : Energy Charge for Commercial Supply (Existing/Proposed) :

| Units/month | Existing (Paise/Unit) | Proposed(Paise/unit) |
|---|---|---|
| 0-200 | 250 | Entire consumption during the month |
| 201-500 | 275 | 345 |
| Above 500 | 300 | |

TABLE 5.5 (*b*) :

MMC for Commercial Supply (Existing/Proposed) :

| Description | Monthly Minimum Charges | |
|---|---|---|
| | Existing | Proposed |
| Upto 5 kW | Rs. 25/month per 500 watts or part thereof of the connected load subject to minimum of Rs. 50/- month. Fraction of half and above of 500 watts will be taken as 500 watts and fraction below half will be ignored. | Rs. 35/month per 500 watts or part thereof of the connected load subject to minimum of Rs. 70/month. Fraction of half and above of 500 watts will be taken as 500 watts and fraction below half will be ignored. |
| Above 5 kW | Rs. 50/- month/kW or part thereof of the connected load. Fraction of half and above of a kW will be taken as 1 kW and fraction below half will be ignored. | Rs. 70/month/kW or part thereof of the connected load. Fraction of half and above of a kW will be taken as 1 kW and fraction below half will be ignored. |

The above changes proposed by the Board yield Rs. 13.60 crores of additional revenue representing an increase of 29.31% over the existing revenue base. The Board has further proposed to merge all the existing slabs.

The Commission has accepted the proposal of the Board to merge all the slabs. This leads to rationalization of the tariff structure and moves the consumers towards the cost of supply regime.

As in the case of NDNCS consumers, a consumer service charge of Rs. 25 per month per consumer is being introduced for reasons explained earlier.

The energy charges proposed by the Board would send a tariff shock and are significantly higher than the average cost of supply as calculated by the Commission and have, therefore, not been accepted. Instead the highest slab of the existing tariff has been retained and entire consumption is approved to be charged at this rate of **Rs. 3 per unit.**

The tariff approved by the Commission is given in the table below ;

TABLE 5.6 : Consumer Service Charge (Part-1) :

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| All consumers | 25 |

TABLE 5.7 : Energy Charge (Part-2)

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| All consumption | 300 |

The Commission has done away with the minimum charges for resasons explained earlier and hence no minimum charges shall be applicable.

The approved tariff will bring additional revenue of Rs. 10.49 crores per annum representing an increase of 22.62% over revenue from the existing tariff. Total revenue from the approved tariff will be Rs. 56.90 crores comprising of Rs. 52.18 crores through energy charges and Rs. 4.72 crores from the consumer service charge.

**5.14.4. Small and Medium Industrial Power Supply, SMS :**

The Small industry schedule is applicable to industries including pumps (other than irrigation pumping), wheat threshers, tokas, poultry farms and sheds, cane crushers, Atta Chakkies, welding sets, Govt. Pumping loads having aggregate connected not exceeding 20kW and all consumption for bonafide factory lighting. The existing schedule for Medium Industrial power is available to Industrial consumers with connected load of more than 20kW but not exceeding 100 kW. It also includes the industrial type of Agricultural loads and Water Pumping with connected load falling in the above range but not covered in Agricultural pumping or Water and Irrigation Pumping.

The existing and proposed tariff for the two categories are given in the following table :—

Table 5.8 : Tariff for small Industry (Existing/Proposed) :

| Description | Energy Charge (paise/unit) | |
|---|---|---|
| | Existing | Proposed |
| Entire consumption | 200 | 245 |

Table : 5.9 ; **Tariff Medium Industry** (Existing Proposed) :

| Description | Energy Charge (paise/unit) | |
|---|---|---|
| | Existing | Proposed |
| Supply at 400 volts | 225 | 280 |
| Supply at 11kV | 215 | 260 |

**Table** 5.10 : Monthly Minimum charges for Medium Industry (Existing/Proposed):

| Description | Monthly Minimum Charge | |
|---|---|---|
| Medium Industrial Power | *Existing* | *Proposed* |
| | Rs. 95/kW or part thereof of the connected load. | Rs. 115/kW or part thereof of the connected load. |

The Board has also proposed a peak load exemption charge of Rs. 85/kVA/month for small industrial consumers and Rs. 140/kVA month for the medium industrial consumers.

The proposed tariff results in an increase of Rs. 2.49 crores per annum in the revenue generated from the small Industry category. The corresponding figure for the Medium Industry category

is Rs. 5.85 crores per annum. This represents an increase of 22.50% for small industry category and 23.25% for medium industry category.

The character of use of both these categories is similar. The divergence in the existing tariff for these categories is not significant. The Commission has therefore decided to merge these two categories in line with the principles of tariff reflecting the cost of supply. In addition, Government pumping loads have been taken out of this category and merged with the Water Pumping category since the character of use is the same and the tariff is also now the same. Clearly industrial consumers should pay at least the average cost of energy. The energy charge has therefore, been fixed at Rs. 2.35 per unit. The existing rebate of 10 paise per unit has been retained for consumers drawing energy at 11kV to encourgge consumers to move towards using electricity at higher voltage.

The Commission is of the view that in future all insdustrial consumers should be merged into a single category and charged on the basis of the difference in the cost of supply at different voltage levels. The above move to merge the small and medium industry is the first step in moving towards this direction.

The consumer service charge has been approved to be Rs. 25 per month per consumer and minimum charges have been abolished due to reasons explained earlier. The tariff approved by the Commission is given in the table below :—

Table 5.11 : Consumer Service Charge (Part-1) :

| *Description* | *Consumer Service Charge (Rs. month/consumer)* |
|---|---|
| All consumers | 25 |

Table 5.12 : Energy Charge (Part-2) :

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| Supply at 230/400 volts | 235 |
| Supply at 11kV | 225 |

Consumers opting to avail of exemption during peak load restriction shall have to get tri-vector electronic meters installed. The following two part PLEC is approved by the Commission. The PLEC would be applicable for consumption during peak load hours only.

Part-1 : Demand charge of Rs. 140/,kva/month to be levied on the maximum-recorded demand during the peak load hours or 80% of the contract demand, for peak load hours, whichever is higher.

Table 5.13 : Energy Charge (Part-2) for consumption during peak load hours:

| Description | Peak load exemption charge (paise/unit) |
|---|---|
| Supply at 230/400 volts | 280 |
| Supply at 11kV | 270 |

For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the Peak Load Violation Charge as specified in the table below.

Table 5.14 : Peak load violation charges (Approved) :

| Description | Peak load violation charge (paise/unit) |
|---|---|
| Supply at 230/400 volts | 560 |
| Supply at 11kV | 540 |

The PLEC as well as PLVC will be levied on the consumption recorded during the peak load hours. In case consumers without a meter capable of recording energy during different time are found violating the peak exemption, one half of consumption for the month shall be billed at the PLVC rate. In case a consumer violates the peak time restriction five times, the connection would be disconnected· It is expected that these penal provisions will help in bringing in better discipline and also encourage spedier installation of electronic tri-vector meters.

The Commissioner has decided to introduce a concessional night-time tariff to ereflect the lower cost of supply during the night hours. The night-time concession has been determined by the Commission to reflect the difference in the cost of power purchase during the night and day hours. Since the State Load Dispatch Centre is not yet operational, it is not possible to calculate exactly the difference in the cost of supply. The Commission has, therefore, provided for an **indicative night-time** concession of 20 paise/unit. This concession shall be made available to the consumers who have tri-vector meters capable of recording consumption during the specified night hours. The concession shall be applicable only on consumption during the night hours as defined in the Part-1 of the tariff schedule. The Commission in future intends to design the night-time tariff in a more scientific and rational manner when the relevant data becomes available.

The above tariff changes will bring in additional revenue of Rs. 4 crores per annum for the two categories taken together which represents an increase of 11.08% over the existing revenue.

The approved tariff will generate total revenue of Rs. 40.13 crores per annum comprising of Rs. 39.21 crores from energy charges and Rs. 0.92 crores from consumer service charge.

**5.14.5. Large Industrial Power Supply, LS :**

LS-1 schedule is applicable to industrial consumers with connected load exceeding 100kW and having mini steel mills/steel rolling and re-rolling mills/calcium carbide/ferro silicon units and arc induction furnaces. LS-2 schedule is applicable to all industrial power consumers incluiding water pumping, resistive furnaces, electric ovens, heat treatment plants where process does not involve melting of metal/mineral and does not cause wide fluctuation in load and othes with connected load exceeding 100kW and not covered under LS-1 Water and irrigation pumping or agricultural pumping.

The Board has proposed to extend this schedule to include power supply to the information Technology industry, limited only to IT parks recognized by the State/Central Government.

The existing and proposed tariff for this category are given below :

Table 5.15 : Tariff for LS-1 and LS-2 (Existing/Proposed) :

| Description | Energy charge (paise/unit) | |
|---|---|---|
| | Existing | Proposed |
| LS-1 | 270 | 325 |
| LS-2 | 250 | 305 |

| Description | Monthly Minimum charges | |
|---|---|---|
| | Existing | Proposed |
| LS-1 | Rs. 220/kVA of the connected load. | Rs. 260/kVA of connected load |
| LS-2 | Rs. 105/kVA of the connected load. | Rs. 130/kVA of connected load. |

The increase in tariff as proposed by the Board will bring in additional revenue of Rs. 4.95 crores per annum, representing an increase of 20.37% in revenue for LS-1 category and Rs. 48.73 crores per annum, representing an increase of 22% for LS-2 category.

The proposal of the Board to increase the tariff of these consumers has not been accepted as the tariff applicable to this category is already significantly above the average cost of supply with a significant cross subsidy. An increase in the tariff would further aggravate this distortion.

The Commission is of the view that consumers should be charged on the basis of the cost of supply and since there is no apparent difference between the cost of supply of these two categories, the Commission has merged the two categories. The merger of these categories is also a step towards creating a single category for all the industrial consumers.

The Commission has considered the Board's view that the tariff for the LS-1 consumer shonld be different as their consumption pattern induces sudden shocks in the system. This aspect is however taken care of by the introduction of demand charge such that the consumers with higher demand would pay more, Further, for consumers who exceed their contract demand a penal rate has been approved.

In addtion, the Commission has decided to move towards a kVAh—based tariff from the present kWh based tariff regime for reesons explained earlier. The Commission has been informed that tri-vector meters (TVM) have been installed for all the consumers in this category and therefore the Commission anticipates no difficulties in implementation of the kVAh-based tariff.

This new system of charging for energy on the basis of kVAh will bring benefits to both consumers and the Board. The former will gain by keeping the power factor high and the Board will gain through better voltage profile and system operation. As a consequence of introduction of kVAh based tariff, the power factor surcharge stands abolished for this category.

The Commission is also conscious of the fact that in Himachal Pradesh the large industrial consumers have borne the brunt of the cross subsidy burden in the past. Accordingly the Commission has determined the tariff in such a manner as to maintain the tariff at the existing level.

The impact of this revision is, therefore, revenue neutral for the category as a whole. However, the Commission anticipates that the consumers maintaining a good load profile would benefit through a marginal reduction in their bills. By maintaining a revenue neutral tariff design the Commission intends to send a signal to the consumers that tariff would be further rationalized in future to closely reflect the cost of supply. The Commission would have liked to align the tariff structure towards cost of supply during the current year itself but was constrained due to the huge revenue gap projected by the Board and consequent increase that would have been required in other categories. Thus as a principle the Commission has maintained the tariff at the existing level. It must be understood that in real terms this translates into a decline after accounting for inflation.

A demand charge of Rs. 125 per kVA per month for this category has been introduced to ensure recovery of fixed costs and to correlate these charges with the level of demand of each consumer. This is necessary to provide the right incentives to the consumers to optimize their demand. From equity consideration, the consumers with higher demand should pay more. The demand charge will be levied on the actual maximum-recorded demand in any 30 minute interval or 80% of the contract demand whichever is higher. If a consumer exceeds the contract demand a penalty of Rs. 300 per kVA per month shall be levied on the part of the demand in excess of the contract demand. In addition a flat consumer service charge to recover costs that do not vary with the individual demand of the consumer has also been introduced.

The tariff approved by the Commission is detailed in the table below :

Table 5.16 : Consumer Service Charge (Part-1) :

| *Description* | *Consumer S rvice Charge Rs./month/consumer* |
|---|---|
| LS | 100 |

Table 5.17 : Energy charge (Part-2) :

| *Descrition* | *Energy Charge (paise/k VAh)* |
|---|---|
| LS | 190 |

Table 5.18 : Demand charge (Part-3) :

| *Description* | *Demand Charge (Rs./kVA/month)* |
|---|---|
| LS | 125 |

The following two part PLEC is approved by the Commission.

Part-1 : Demand charge of Rs. 150/kVA/month to be levied on the maximum-recorded demand during any 30 minute interval during the peak load hours or 80% of the contract demand. for peak load hours, whichever is higher,

Table 5.19 : Energy Charge (Part-2)—for consumption during peak load hours :

| *Description* | *Peak load exemption charge (paise kVAh)* |
|---|---|
| LS supply | 235 |

For consumers who do not have the exemption but are found using the electricity during peak hours will have to pay the Peak Load Violation Charge as specified in the table below. This penal rate will be applied only to the consumption during the peak hours. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

Table 5.20 : Peak load violation charges (Approved) :

| *Description* | *Peak load violation charge (paise/kVAh)* |
|---|---|
| LS supply | 470 |

The commission has decided to introduce a concessional night time tariff to reflect the lower cost of supply during the night hours. The night time concession has peen determined by the Commission to reflect the difference in the cost of power purchase during the night and day hours. Since the State Load Dispatch Centre is not yet operational, it is not possible to accurately calculate the difference in the cost of supply. The **Commission has, therefore, provided for an indicative night-time concession of 20 paise/unit.** This concession shall be made available to the consumers who have tri-vector meters capable of recording consumption during the specified night hours. The concession shall be applicable only on consumption during the night hours as defined in the Part-1 of the tariff schedule. Commission in future intends of design the night tariff in a more scientific and rational manner when the relevant data becomes available.

The monthly minimum charges have been abolished due to reasons explained earlier.

The above tariff structure has been designed to be revenue neutral with the existing tariff structure and it is estimated that the approved tariff will generate total revenue of Rs. 245.78 crores over a full year, including revenue from PLEC /PLVC charges. Out of this, Rs. 205.92 crores will be on account of energy charges, Rs. 0.01 crores through consumer service charge and Rs. 37.45 crores through demand charge and the balance through PLC/PLVC charges.

**5.14.6. Water Pumping supply, WPS :**

The schedule is being renamed as Water Pumping for the sake of simplicity and clarity. It is available for Government connections for water and irrigatton pumping with connected load exceeding 20kW. The schedule also covers all consumption for bonafide Pump House lighting.

The existing and proposed tariff for this category are given in the following tables :

Table 5.21 : Tariff for Water & Irrigation Pumping (Existing/Proposed) :

| | Energy Charge (paise/unit) | |
|---|---|---|
| Description | Existing | Proposed |
| Supply at less than 11kV | 220 | 280 |
| Supply at 11 kV & above | 200 | 260 |

| | Monthly Minimum Charges | |
|---|---|---|
| Description | Existing | Proposed |
| | Rs. 70/kW of connected load. Fraction of a kW less than 0.5 will be ignored and that of 0.5 and above will be taken as 1 kW. | Rs. 85/kW of connected load. Fraction of a kW less than 0.5 will be ignored and that of 0.5 and above will be taken as 1 kW. |

The Board has proposed an increase in revenue by Rs. 13.35 crores, representing an increase of 28.57% through the above changes in tariff.

The Commission has included Government pumping loads of less than 20kW in this category as explained earlier while discussing the SMS category. The tariff approved by the Commission is given in the table below:

Table 5.22 : Consumer Service Charge (Part-1) :

| *Description* | *Consumer Service Charge (Rs./month/consumer)* |
|---|---|
| All consumers | 25 |

Table 5.23 : Energy Charge (Part-2):

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| Supply at less than 11 kV | 235 |
| Supply at 11kV & above | 225 |

Consumers opting to avail of exemption during peak load restriction shall have to install tri-vector electronic meters. The following two part PLEC is approved by the Commission. The PLEC would be applicable for consumption during peak load hours only.

Part-1 : Demand charge of Rs. 140/kVA/month to be levied on the maximum-recorded demand during the peak load hours or 80% of the contract demand for peak load hours, whichever is higher.

Table 5.24 : Energy Charge (Part-2) for consumption during peak hours :

| *Description* | *Peak load exemption charge (paise/unit)* |
|---|---|
| Supply at less than 11kV | 280 |
| Supply at 11kV & above | 270 |

For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the Peak Load Violation Charge as specified in the table below.

Table 5.25 :Peak load violation charges (Approved) :

| *Description* | *Peak load violation charge (paise/unit)* |
|---|---|
| Supply at less than 11kV | 560 |
| Supply at 11kV & above | 540 |

The PLEC as well as PLVC will be levied only on the consumption recorded during the peak hours. In case consumers without a meter capable of recording energy during different time are found violating the peak exemption, one half of the consumption for the motth shall be billed at the PLVC rate. In case a consumer violates the peak time restriction five times, the connection would be disconnected. It is expected that these penal provisions will help in bringing in better discipline and also encourage the speedier installation of electronic trivector meters.

The Commission has provided for an indicative night-time concession of 20 paise unit. This concession shall be made available to the consumers who have trivector meters capable of recording

consumption during the specified night hours. The concession shall be applicable only on consumption during the night hours as defined in the Part-1 of the tariff schedule.

The monthly minimum charges have been abolished due to reasons explained earlier.

The above changes will generate additional revenue of Rs. 4.50 crores, in a full year, an increase of 9.63% over the revenue from existing tariff.

The approved tariff will bring in total revenue of Rs. 51.22 crores per annum. This comprises of Rs. 51.17 crores through energy charges and Rs. 0.05 crores through consumer service charges.

**5.14.7 Agricultural Pumping Supply, APS :**

This schedule is applicable to Irrigation Pumping loads with connected load not exceeding 20 kW and private irrigation loads in individual names above 20 kW.

The existing and proposed tariff for the category is given below :

Table 5.26 :Tariff for Agricultural Pumping Supply (Existing/Proposed):

| *Description* | *Energy Charge (paise/unit)* Existing | *Energy Charge (paise/unit)* Proposed |
|---|---|---|
| All consumption | 50 | 135 |

The Board has also proposed PLEC of Rs. 85/kVA/month.

The Board has proposed an increase in revenue from Rs. 1.05 crores to Rs. 2.84 crores, representing an increase of 170% over revenue from existing tariff.

The tariff for these consumers is below the cost of supply. The Commission has increased the effective tariff for these consumers by applying the consumer service charge at Rs. 20 per consumer per month. The Commission intends to further increase the tariff for this category in the future in a gradual manner so as to align it more closely to the cost of supply. The tariff approved by the Commission is given in the table below :

Table : 5.27 :Consumer Service Charge (Part-1) :

| *Description* | *Consumer Service Charge (Rs./mooth/consumer)* |
|---|---|
| All consumers | 20 |

Tabie 5.28 : Energy Charge (Part-2) :

| *Description* | *Energy charge (paise/unit)* |
|---|---|
| All consumption | 50 |

Consumers opting to avail of exemption during peak load restriction shall have to install tri-vector electronic meters. The following two part PLEC is approved by the Commission. The PLEC would be applicable for consumption during peak load hours only.

Part-1 : Demand charge of Rs. 85/kVA/month to be levied on the maximum-recorded demand during the peak hours or 80% of the contract demand for peak load hours, whichever is higher.

Table 5.29 : Energy Charge (Part-2) for consumption during pepk load hours :

| *Description* | *Peak load exemption charge (paise/unit)* |
|---|---|
| Agricultural pumping | 60 |

For consumers who do not have the exemption but are found using the electricity during peak hours will have to pay the Peak Load Violation Charge as specified in the table below.

Table 5.30 : Peak load violation charges (Approved) :

| *Description* | *Peok load voilation charge (paise/unit)* |
|---|---|
| Agricultural pumping | 120 |

The PLEC as well as PLVC will be levied only on the consumption recorded during the peak hours. In case consumers without a meter capable of recording energy during different time are found violating the peak exemption, one half of the consumption for the month shall be billed at the PLVC rate. In case a consumer violates the peak time restricition five times, the connection would be disconnected. It is expected that these penal provisions will help in bringing in better discipline and also encorage the speedier installation of electronic trivector meters.

The Commission has provided for an indicative night-time concession of 20 paise/unit. This concession shall be made available to the consumers who have trivector meters capable of recording consumption during the specified night hours. The concession shall be applicable only on consumption during the night hours as defined in the Part-1 of the tariff schedule.

The monthly minimum charges have been abolished due to reasons explained earlier.

The above tariff changes will generate additional revenue of 0.15 crores, an increase of 14.46% over the revenue from existing tariff.

The approved tariff will generate total revenue of Rs. 1.20 crores per annum, comprising of Rs. 1.05 crores on account of energy charges and Rs. 0.15 crores through consumer service charge.

**5.14.8. Bulk Supply, BS ;**

This schedule is applicpble to general or mixed loads exceeding 20 kW to M.E.S. and other Military establishments, Railways, Central PWD Institutions, Construction power for Hydro Electric Projects, Hospitals, Departmental colonies, A.I.R. Installations, Aerodromes and other similar establishments where further distribution to various residential and non-residential buildings is to be undertaken by the consumer.

The existing and the proposed tariff for his category are given below :

Table 5.31 (*a*) : Energy charge for Bulk Supply (Existing/Proposed) :

| | *Energy Charge (paise/unit)* | |
|---|---|---|
| *Description* | *Existing* | *Proposed* |
| Supply at less than 11kV | 305 | 330 |
| Supply at 11kV & above | 285 | 310 |

Table 5.31 (*b*) : MMC for Bulk Supply (Existing/Proposed) :

| *Description* | *Monthly Minimum Charge* | |
|---|---|---|
| | *Existing* | *Proposed* |
| | Rs. 80/kW or part thereof of the connected load. | Rs. 90/kW or part thereof of the connected load. |

The Board has proposed generation of additional revenue of Rs. 2.52 crores, representing an increase of 8.47% over the revenue from existing tariff.

The Commission has not agreed with the proposal of the Board as the tariff for this category is already above the cost of supply. Instead the tariff has been lowered for this category. A customer service charge of Rs. 25 per consumer per month has also been introduced as for other consumers.

The tariff approved by the Commission is given in the table below :

Table 5.32 : Consumer Service Charge (Part-1) :

| *Description* | *Consumer Service Charge (Rs./Month/Consumer)* |
|---|---|
| All consumers | 25 |

Table 5.33; Energy Charge (Part-2) :

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| Supply at less than 11kV | 295 |
| Supply at 11kV & above | 285 |

The monthly minimum charges have been abolished due to reasons explained earlier.

The above changes in tariff will lead to a minor decrease in revenue to the extent of Rs. 0.50 crores, a decrease of 1.68% from the revenue over the existing tariff. The approved tariff will generate total revenue of Rs.29.28 crores in a full year from this category.

**5.14.9 Street Lighting Supply, SLS :**

This schedule is applicable to Street lighting system including traffic control signal systems on roads and Park lighting in Municipalities, Panchayats and Notified Committee areas.

The existing and proposed charges are given in the following table :

Table 5.34 : Tariff for Street Lighting (Existing/Proposed) :

Table 5.34 : Tariff for Street Lighting (Existing/Proposed) :

| *Description* | *Energy Charge (paise/unit* | |
|---|---|---|
| | *Existing* | *Proposed* |
| All consumption | 200 | 300 |

The Board has proposed an increase of Rs. 0.94 crores in revenue from the category, representing an increase of 50%.

The Commission has not approved the above increase proposed by the Board. This is a public service and to charge the local bodies beyond the cost of supply is not justified. Therefore the Commission has rationalized the tariff tobring it closer to the cost of supply.

A consumer service charge has been approved due to reasons explained earlier. The tariff approved by the Commission is given in the table below :—

Table 5.35 : Consumer Service Charge (Part-1):

| *Description* | *Consumer Service Charge (Rs./month/consumer)* |
|---|---|
| All consumers | 25 |

Table 5.36 : Energy Charge (Part-2):

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| All consumption | 235 |

A part from energy charges, Line maintenance and lamp renewal charges are also charged. The Board has not proposed any change in the existing rates of these.

The monthly minimum charges have been abolished due to reasons explained earlier.

The additional revenue generated from the above tariff amounts to Rs. 0.34 crores representing an increase of approximately 18.25% over the revenue at existing tariff. The total revenue for a full year at the approved tariff is Rs. 2.22 crores.

**5.14.10 Temporary Metered Supply, TS :**

Temporary Supply connection is charged with surcharge of 100% of the relevant category under the existing tariff structure.

The Board has not proposed any change in the tariff applicable to this category. The existing schedule incorporates three separate sub-categories.

The supply in this category is of sudden and unforeseen nature. Further, the demand is for a short time period only and may arise in different locations at different points in time. It is hence not possible to accurately forecast the demand and provide facilities for such supply as in case of permanent consumers Generally, the Board will have to arrange for such supply from external sources and erect required facilities on a pressing basis. The Commission would have preferred to determine this tariff on a marginal cost basis. However, this study has not been made available by the Board: The Commission has hence determined a tariff, which can be treated as a very approximate reflection of the marginal cost. The Commission has also simplified the tariff schedule. A flat energy rate has been fixed for all consumers under this category as the nature of use by all consumer is of temporary nature irrespective of the works carried out by them. Similarly a flat consumer service charge has also been approved. Minimum Charges stand abolished for reasons explained earlier. The tariff approved by the Commission is given below:—

Table 5.37 ; Consumer Service Charge (Part-1):

| *Description* | *Consumer Service Charge (Rs./month/consumer)* |
|---|---|
| All consumers | 50 |

Table 5.38 : Energy Charge (Part-2):

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| All consumption | 500 |

A number of administrative provisions have been incorporated in the existing tariff schedule for temporary supply category. These measures are purely of administrative nature and have no relation to the tariff schedule. They have also not been incorporated in other categories by the Board. The Commission has, therefore, deleted them from the tariff schedule applicable to the temporary supply category. The Board may, however, incorporate these conditions, wherever necessary in the Sales Manual.

**5.14.11 Winter Surcharge :**

A winter surcharge of 25 paise/kWh on consumption during the winter months (November to March) is being levied due to reasons explained earlier. This will be applied to all consumers except the Antyodaya Anna Yojana consumers. In the case of LS consumers this will be charged in kVAh terms and will be 20 paise per kVAh. **This winter surcharge shall be applicable only for FY 2001-02.** The application of winter surcharge will yield additional revenue of approximately Rs. 25.26 crores when applied on the sales of November to March during FY 2001-02.

**5.14.12 Non-Tariff Income**

HPSEB has proposed generation of revenue of Rs. 37.33 through non-tariff income. The sources of this are given in the following table :—

Table 5.39 : Non tariff income (Existing/Proposed) (Rs. Crores) :

| | Existing | Proposed |
|---|---|---|
| (*a*) Rental of meters and other apparatus hired to consumers | 7 | 15 |
| (*b*) Sale of repair of lamps and apparatus | | — |
| Rents less outgoing not otherwise provided for Transfer fees | | — |
| Investments fixed and call deposits and bank balances | | — |
| Other general receipts accountable for income tax and arising from on ancillary or incidental to business of electricity supply | 14.19 | 18.45 |
| Revenue from surcharge for late payment | 3.50 | 4.28 |
| Total of "non-tariff income" .. | 24.69 | 37.73 |

The provisional accounts for the FY 2000-01 however indicate an existing non-tariff income of Rs. 32.24 crores.

The commission has approved changes in the meter rental and other general services of the Board which are explained at paragraph 5.14 thereby yielding an additional revenue of approximate Rs. 8.45 crores over the indicated base of Rs. 32.24 crores in a full year.

5.15. HPSEB in its petition has proposed increase in general and service charges. These are to be charged from the consumers for the rentals of the energy meters and various services rendered. The Commission has approved higher monthly rentals to that proposed by HPSEB for the energy meters keeping in view the annuity charges to be recovered on no profit basis based on their costs. The cost of the energy meters assumed for working out the annuity has been revised upwards to ensure that the energy meters purchased by the Board not only meet international standards but also are of electronic type. Since the Commission has approved higher meter rentals it is passing necessary directions to the Board that from March 31, 2002 onwards

all defective/deadstop energy meters be replaced with electronic meters only. The service charges have been moderated and rationalized, wherever required, and felt necessary by the Commission, keeping in view the actual work involved and the specialization that needs to be put in by the Board in terms of man-hours for extending such a service as also the testing tools and plant that are required for such works. Penalty charges to curb malpractices, have been introduced in specific cases where the Board notices meter tampering.

5.16. The categary wise revenne generated from the existing and approved tariff is presented in the table below :

Table 5.40 : Category-wise revenue breakup (Existing/Approved) :

| Description | Existing | Approved | Difference | |
|---|---|---|---|---|
| | (Rs. Crores) | (Rs. Crores) | (Rs. Crores) | % |
| DS | 70.41 | 90.43 | 20.02 | 28.4 |
| NDNCS | N.A. | 5.00* | 5.00 | — |
| CS | 46.39 | 56.89 | 10.50 | 22.6 |
| SMS | 36.13 | 40.13 | 4.00 | 11.1 |
| LS | 245.78 | 245.78 | 0.00 | 0.0 |
| APS | 1.05 | 1.20 | 0.15 | 14.5 |
| WPS | 46.72 | 51.22 | 4.50 | 9.6 |
| SLS | 1.87 | 2.22 | 0.34 | 18.3 |
| BS | 29.78 | 29.28 | —0.50 | —1.7 |
| Winter surcharge | 0.00 | 25.26 | 25.26 | — |
| Sub-Total .. | 478.15 | 547.41 | 69.26 | 14.5 |
| Non-tariff income .. | 32.24 | 40.69 | 8.45 | 26.2 |
| Total | 510.39 | 588.06 | 77.71 | |

**Additional revenue only*:

5.17. The new tariff will come into force from November 1, 2001. The Board's plea to make the new tariff applicable from *June, 2001 has not been accepted* as already explained in Chapter 3. With the above changes, the HPSEB will be able to generate a surplus of Rs. 1.04 crores over a period of one year as indicated in the table below.

Table 5.41: Overall expenditure-revenue position after considering tariff revision :

| | Rs. Crores |
|---|---|
| Revenue requirement including return on net fixed assets. | 775.34 |
| Income from sale of power | 547.41 |
| Income from sale of power outside the state | 188.28 |
| Other income | 40.69 |
| Total Income .. | 776.38 |
| Net Surplus .. | 1.04 |

This surplus is over and above the statutory return of 3% on net fixed assets allowed to the SEBs and has been provided for contingencies that may arise and to cover the risk of some assumptions made by the Commission in the absence of proper data, going wrong.

The tariff approved by the Commission signifacantly reduces the cross subsidy. At present, with the existing level of data it has not been possible to exactly quantify this although the broad direction is evident. In order to be able to get a more precise idea of the extent of cross subsidy and the impact of future directions more data would be required. Accordingly the Board is directed to provide detailed information on voltage wise assets, costs and sales with the next tariff petition so that this could be measured precisely in the future.

ANNEXURE-5.1

## HIMACHAL PRADESH STATE ELECTRICITY BOARD

### NOTIFICATION

No. ..................... Dated .......................

In pursuance of the tariff order dated October 29, 2001 issued by the Himachal Pradesh Electricity Regulatory Commission, the Himachal Pradesh State Electricity Board is pleased to notify the following Schedule of Tariff and the general conditions of tariff for supply of electricity to various categories of consumers in Himachal Pradesh with effect from Nnmber 1, 2001.

**PART-1 GENERAL :**

(*a*) This schedule may be called the Himachal Pradesh State Electricity Board Schedule of Electricity Tariff, 2001.

(*b*) This schedule of tariff shall come into force with effect from November 1, 2001 and will be applicable throughout the State of Himachal Pradesh.

(*c*) The rates mentioned in this schedule of tariff are exclusive of Electricity Duty, taxes and other charges already levied or as may be levied by the Government of Himachal Pradesh from time to time.

(*d*) The various rates mentioned in this tariff are net. If the bill is not paid by the due date specified therein, a late payment surcharge shall be charged @ 2% per month proportionately for the number of days for which the payment is delayed beyond the due date specified in the bill and levied on the unpaid amount of the bill (excluding electricity duty/taxes etc.). This surcharge will be applicable to all consumer categories and is without prejudice to the right of the HPSEB to disconnected the supply.

(*e*) This tariff will automatically supersede the existing tariff that was in force with effect from May 1, 2000, except where special agreements have otherwise been entered into for a fixed period. Street Light agreements will however, not be considered as special agreements for the purpose and the revised tariff as per schedule "SL" shall be applicable.

(*f*) This schedule of tariff is subject to the provisions of the "Abridged Conditions of Supply" and schedule of "General and Service Charges".

(*g*) *Single Point Supply*.—The various tariffs referred to in this schedule are based on the supply being given through a single delivery and metering point and a single voltage. Supply at other points or at other voltages, if any, shall be separately metered and billed.

(*h*) *Force Majeure Clause.* In the event of lockout, fire or any other circumstances considered by the Board beyond the control of the consumer, he shall be entitled to proportionate reduction in consumer service charge, demand charge or any other fixed charge, if applicable, provided he serves at least 3 days notice on the supplier for shut down of not less than 15 days duration.

(*i*) *Peak Load Hours Supply.*—Supplies under schedule "Agricultural Pumping" (APS), "Small and Medium Industrial Power Supply" (SMS), and "Large Industrial Power Supply" (LS) and "Water Pumping Supply)" (WPS) shall not be available during the peak load hours. The duration of peak load hours in summer and winter shall be as under :—

| | | |
|---|---|---|
| (*a*) Summer | (April to October) | 6.00 P.M. to 9.00 P.M. |
| (*b*) Winter | (November to March) | 5.30 P.M. to 8.30 P.M. |

However, where the above categories of consumers want to avail exemption during the peak load hours for any special reason, a separate sanction of the Board is necessary, which shall be issued at the request of the consumer and subject to availability of power in the area. Consumers requesting for peak load exemption must get the tri-vector electronic meters installed that are capable of recording the maximum demand as well as the energy consumption in every 30 minute block for all twenty four (24) hours of the day. Where sanction for running of unit during peak load hours is already issued, no further sanction is required, However, any consumer having a sanction but without tri-vector meter would also need to get it installed within three months of issue of this notification. All consumers who have been given exemption during the peak load hours shall be billed for additional charge as specified in the relevant schedule of tariff.

(*j*) *Night Hours Supply.*—The duration of night hour supply for the purpose of night time concession, wherever applicable, shall be from 00.00 hours to 06.00 hours.

(*k*) *Seasonal Industries.*—In this schedule unless the context otherwise proivdes, seasonal industries mean the industries which by virtue of their nature of production can work only during a part of the year, continuously or intermittently up to a maximum period of 7.5 months in a year, such as Atta Chakkies, Saw Mills, Tea Factories, cane crushers, Irrigation Water Pumping, Rice Husking/Hullers, Ice Factories, Ice Candy Plants and such other factories as may be approved and declared as seasonal by the Board from time to time. Seasonal Industries shall be governed under the following conditions:—

(*i*) The consumer shall intimate in writing to the concerned Sub-Divisional Officer of the Board one month in advance, the months or the period of off season during which he will close down his plant(s).

(*ii*) The minimum working period for a seasonal industry in a year shall be taken as 4 (Four) months.

(*iii*) During the off -season, the entire energy consumption and the power utilised for maintenance and overhauling of the plant and the factory lighting will be charged at "Commercial Supply" tariff.

(*iv*) The consumer service charge, demand charge or any other fixed charge shall be leviable for the seasonal period only.

(*v*) All the seasonal industrial consumers shall be required to deposit the Advance Consumption Deposit at the time of release of connection at double the normal rates for different categories of industrial consumers. In case the consumer fails to clear his energy bill at the time of start of "OFF-SEASON", the Advance

Consumption Deposit shall further be doubled before he is allowed to run his industry at the time of start of next season.

(*l*) *Meetring on LT Side.* In respect of HT consumers (11 KV and above) where the maximum demand and energy consumption are recorded on lower voltage side of the consumer's transformer instead of higher voltage side on account of non-availability of HT meter or its unhealthy operation the energy consumed for the purpose of billing should be computed by adding 2% extra to the energy consumption recorded by the LT meter.

(*m*) *Winter Surcharge.*—A winter surcharge of 25 paise per unit (kWh for all consumers except LS where it will be 20 paise per kVAh) shall be levied on all energy consumption during the period November 1, 2001 to March 31, 2002 only. This surcharge shall not be applicable to the Antyodaya Anna Yojana consumers.

(*n*) *Power Factor Surcharge* :—

(*i*) The Agricultural, Small and Medium Industry and Water Pumping consumers shall maintain an average power factor of not less than 0.90 in respect of their installations. If the monthly average power factor falls below 0.90, the consumer shall pay a surcharge of 10% on the amount of energy charges of the bill.

(*ii*) The monthly average power factor will be calculated on readings of tri-vector meter/bi-vector meter/two part tariff meters as per formula given below and shall be rounded up to two decimal places.

POWER FACTOR=kWh/kVAh

In case of defective tri-vector meter/bi-vector meter/two part tariff, meter, power factor will be assessed on the basis of average power factor recorded during last three consecutive months when the meter was in order. In case no such readings are available then the monthly average power factor of three months obtained after installation of correct tri-vector meter bi-vector meter two part tariff meter shall be taken for the purpose of power factor surcharge during the period the tri-vector meter/bi-vector meter/two part tariff meter remained defective.

(*iii*) In respect of consumers where tri-vector meter/bi-vector meter/two part tariff meter is not installed, if at any time power factor is checked by any means and found to be lower than 0.90 lagging, a surcharge @ 10% on the amount of energy charges irrespective of voltage of supply shall be charged from the consumer from the month of checking and will continue to be levied till such time the consumer has improved his power factor at least to 0.90 lagging by suitable means under intimation to the concerned Sub-Divisional Officer who shall immediately get it checked.

(*iv*) Should the monthly power factor falls below 0.85, it must be brought up to minimum of 0.90 by consumer by suitable means within a period of three months, failing which without prejudice to right to collect surcharge, the connection shall be disconnected unless monthly average power factor is improved to 0.90 by the consumer to the satisfaction of the Board.

(*v*) For the improvement of the power factor the consumer shall install shunt capacitors manufactured by the standard manufacturers and duly marked with I.S.I. specification

(*vi*) The said power factor surcharge shall be irrespe of ectivvoltage of supply.

(vii) The consumer service charge, demand charge or any other fixed charge shall not be taken into account for working out the amount of power factor surcharge, which shall be levied on the amount of energy charges only. In respect of "Temporary Metered Supply" connections, the power factor surcharge shall be worked out both on energy charges and the 100% surcharge as per clause-3 of the schedule "TM" of this tariff.

(viii) No new supply to L.T. installations with induction motor(s) of capacity above 3 H.P. and/or welding transformers above 2.0kVA shall be given unless shunt capacitors of appropriate ratings are installed to the entire satisfaction of the Board.

(o) *Replacement of Defective/Missing domaged Shut Capacitors :—*

(i) It will be obligatory on the part of the consumer to maintain capacitors in healthy conditions and in the event of its becoming burnt/damaged he shall have to inform the Sub-Divisional Officer concerned immediately in writing and also to get the defect rectified within a maximum period of one month from the date the capacitor has gone defective.

(ii) In case shunt capacitor(s) is/are found to be missing or inoperative or damaged, 15 days notice shall be issued to the consumer for rectification of the defect and setting right the same. In case the defective capacitor(s) is/are not replaced/rectified within one month of the issue of the notice, a surcharge @ 10% per month on bill amount shall be levied *w. e. f.* the date of inspection to the date of replacement of defective/damaged missing capacitors.

(p) These tariff rates do not take into account any liability on account of interest on security deposits/advance consumption deposits. In case any liability accrues to the Board on this account at any stage due to any reasons whatsoever, the corresponding amount of liability shall be recovered from the consumer as a part of tariff in addition to these tariff rates.

(q) In case any dispute regarding applicability of this tariff arises, the decision of the Board will be final and binding on the consumers.

**DEFINITIONS :**

1. **Act : The 1910** Act shall mean the Indian Electricity Act, 1910. **the 1948 Act** shall mean the Electricity (Supply) Act, 1948 and **the 1998 Act** shall mean the Electricity Regulatory Commissions Act, 1998. as amended from time to time.

2. **Average Power Factor** : shall mean the average energy factor and shall be taken as the ratio of the "kilo-watt-hours" (kWh, to the "kilo-volt-ampere-hours" (kVAh) supplied during any period.

3. **Board** : means the Himachal Pradesh State Electricity Board.

4. **Commission** : shall mean the Himachal Pradesh State Electricity Regulatory Commission.

5. **Connected Load:** shall mean the sum of all the rated capacities of all the energy consuming devices/apparatus at the consumer's installation. This shall not include the stand by or spare energy consuming apparatus installed through the change over switch provided the competent authority has accorded the requisite prior permission.

6. **Consumer Service Charges** : shall mean the fixed amount to be paid by the consumer as defined in the respective tariff schedule.

7. **Contract demand** : shall mean the maximum demand for which the consumer has entered into an agreement with the Board.

8. **Demand Charges** : shall mean the amount chargeable based upon the billing demand in kVA as defined in the relevant tariff schedule.

9. **Energy Charges** : shall mean the charge for energy actually taken by the consumer and is applicable to the units consumed in the relevant billing period.

10. **Maximum Demand** : for any month shall mean the highest average load measured in ekilovolt amperes during any consecutive 30 minutes period of the month.

11. **Rules** : shall mean Indian Electricity Rules, 1956 as amended from time to time.

12. **Sanctioned Load** : shall mean load for which the Board has agreed to supply from time to time subject to the governing terms and conditions. The total connected load is required to be sanctioned from the competent authority.

13. **Schedule** : shall mean this Tariff Schedule.

14. **Supplier** : shall mean the Himachal Pradesh State Electricity Board.

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## PART-II—SCHEDULE OF TARIFF

## SCHEDULE - DOMESTIC SUPPLY DS

**1. Applicability** :

This schedule is applicable to consumers using electricial energy for lights, fans, heaters cooking ranges, ovens, refrigerators, air conditioners, stereos, radios, televisions, mixers, grinders, electric iron, sewing/embrodiery/knitting machines, domestic pumping sets and other domestic appliances in a single private house/flat or any other residential premises.

**Notes :—**

(*i*) Where a portion of the dwelling is used regularly for the conduct of a business, the consumption in that portion shall be separately metered and billed under the appropriate Commercial or Industrial power tariff whichever is applicable. If separate circuits are not provided, the entire supply will be classified under "Commercial Supply".

(*ii*) Resale and sub-metering of supply to tenants, other flats etc. is strictly prohibited.

(*iii*) No compounding will be permissible and where compounding has been permitted in the past such consumers will be required to fix separate meters within a period of three months from Nomber 1, 2001 . For residential socities who wish to take a single point supply, this would be permitted, and the energy charges would be divided by the number of such units to determine the relevant slab. Thus if there are 10 dwelling units in a society and the energy consumption in a month is 3000 units, the first 450 (45 * 10) units would be charged at 85 paise per unit, the next 1050 (105*10) unit at 130 paise per unit and the remaining 1500 units at 240 paise per unit.

2. **Character of service** :

(*a*) A. C50 C/S, single phase, 230 volts or three phase 400 volts.

(*b*) In case of large loads, supply may, at the discretion of the supplier, be given at 11kV or above.

3. **Tariff** :

Energy Charge :

| Description | Energy Charge (paise/unit) |
|---|---|
| KWh per month | |
| Antyodya Anna Yojna beneficiaries* (upto 45 units per month) | 70 |
| **Other consumers** | |
| 0—45 | 85 |
| 46—150 | 130 |
| Above 150 | 240 |

*In the case of Antyodya Anna Yojna beneficiaries the concessional tariff will be available for use of electricity by these families upto a maximum of 45 units per month. In case this limit is exceeded, the normal domestic tariff will apply for the entire consumption.

## SCHEDULE—NON-DOMESTICAL NON-COMMERCIAL SUPPLY NDNCS

1. **Applicability** :

This schedule is applicable to the following consumers :—

(*a*) Govt./Govt. recognized Educational Institutions *viz.* Schools, Universities, I.T.Is., Hostels and residential quarters attached to the educational institutions.

(*b*) Religious places such as Temples, Gurudwaras, Mosques, Churches etc.

(*c*) Orphanages, Sainik Rest Houses, Working Women Hostels, Anganwari workers training centres and houses for destitute and old people.

(*d*) Free hospitals and Leprosy Homes run by charity and un-aided by the Government.

(*e*) Sarais and Dharamshalas run by Panchayats and Municipal Committees or on donations and those attached with religious places, subject to the condition that nominal and token amount to meet the bare cost of upkeep and maintenance of the building etc. is being recovered and no rent as such is charged.

2. **Character of service** :

(*a*) A.C. 50 C/S, single phase, 230 volts or three phase 400 volts.

(*b*) In case of large loads, supply may, at the discretion of the supplier, be given at 11kV or above.

3. Tariff.

Consumer Service Charge (Part-1)

| *Description* | *Consumer Service Charge (Rs. month/consumer)* |
|---|---|
| All consumers | 25 |

Energy Charge (Part-2)

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| All consumption | 250 |

## SCHEDULE— COMMERCIAL SUPPLY CS

**1. Applicability :**

This schedule is applicable to consumers for lights, fans, appliances like pumping sets, central air conditioning plants, lifts, heaters, embroidery machines, printing press, power press and small motors in all commercial premises such as shops, business houses, cinemas, clubs, banks, offices, hospitals, petrol pumps, hotels/motels, servicing stations, nursing homes, rest/guest houses, research institutions, coaching institutions, museums, dry cleaning, garages and auditoriums , departmental stores, restaurants, lodging and boarding houses, private unrecognized educational institutions, Panchayat ghar and Patwar Khanna etc.

This schedule will also include all other categories, which are not covered by any other tariff schedule.

**Note.**—Resale and sub-metering to tenants, adjoining houses and to other parties is strictly prohibited.

**2. Character of service :**

(*a*) A. C. 50 C/S, single phase, 230 volts or 3 phase 400 volts.

(*b*) In case of large loads, supply may at the discretion of the supplier, be given at 11 kV or above.

**3. Tariff :**

Consumer Service Charge (Part-1)

| *Description* | *Consumer Service Charge (Rs. month/consumer)* |
|---|---|
| All consumers | 25 |

Energy Charge(Part-2) :

| *Descriation* | *Energy Charge (paise/unit)* |
|---|---|
| All consumption | 300 |

**4. REBATE :**

A rebate of 7.5%, on the energy charges will be allowed if the supply, at the discretion of the supplier, is given at 11kV or above.

## SCHEDULE -SMALL AND MEDIUM INDUSTRIAL POWER SUPPLY SMS

**1. Applicability :**

This schedule is applicable to Industrial consumers with connected load not exceeding 100kW including pumps (other than irrigation pumping) wheat threshers, tokas, poultry farms and sheds, cane crushers, Atta Chakkies, Welding sets and also for supply to Information Technology Industry, limited only to IT Parks recognised by the State/Central Government. The Industrial type of Agricultural loads with connected load falling in the above mentioned range and not covered by Schedule "APS" shall also be charged under this schedule.

**2. Character of Service :**

A.C, 50 C/S, 1 phase, 230 volts or 3 phase, 400 volts or 11000 volts at the discretion of the supplier.

**3. Tariff :**

Consumer Service Charge (Part-1)

| *Description* | *Consumer Service Charge (Rs./month/consumer)* |
|---|---|
| All consumers | 25 |

Energy Charge (Part-2) :

| *Descripton* | *Energy Charge Paise/unit)* |
|---|---|
| Supply at 230/400 volts | 235 |
| Supply at 11 kV | 225 |

**4. Peak load exemption charges (PLEC) and peak load violation charges (PLVC):**

Consumers who wish to avail of this facility will have to get tri-vector meters installed that are capable of recording energy consumption at 30 miniutes interval.

The following PLEC would be applicable for consumption during peak load hours only.

Part-1 : Demand charge of Rs. 140/kVA/month to be levied on the maximum recorded demand during the peak load hours or 80% of the contract demand. for peak load hours, which ever is higher.

Part-2 : Energy Charge for consumption during peak load hours

| *Description* | *Peak load exemption charge (Paise/unit* |
|---|---|
| Supply at 230/400 volts | 280 |
| Supply at 11 kV | 270 |

For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the following Peak Load Violation Charge. This penal rate will be applicable only to consumption during the peak load hours. Consumers violating the peak load hour restriction and not having energy/meters capable of distinguishing between peak time and other consumption will be charged the penal rate for 50 of the entire consumption

for the month. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

Peak load violation charges

| *Description* | *Peak load violation charge (Paise/unit* |
|---|---|
| Supply at 230/400 volts | 560 |
| Supply at 11kV | 540 |

**5. Night time concession:**

A night-time concession of 20 paise/unit on consumption of energy between 00.00 hours to 06.00 hours shall be given. This concession will be available only where electronic tri-vector meters have been installed.

**6. Surcharge for L.T. supply to steel rolling mills :**

Steel Rolling and Re-rolling Mills given supply at L.T. under this tariff shall be charged a surcharge @10% on the amount of energy charges of 235 paise per unit as per clause 3 above.

**7. Power factor :**

Power factor surcharge is applicable and shall be levied as per the provisions under "Part-I-General" of this notification.

**8. Factory lighting and colony supply :**

All consumption for bonafide factory lighting *i.e.* energy consumed in factory premises including factory building, its offices, stores,time keeper office, canteen, library, staff dispensary, welfare centre and factory yard lighting shall be charged under this tariff schedule.The consumption for bonafide use of residential/staff quarters and street lighting of the colony shall also be charged under this tariff schedule.

Such consumption shall be charged for the energy consumed at the following rates, irrespective of whether the consumer has opted for peak time consumption or not.

(*i*) During normal times : normal rate
(*ii*) During peak times : the PLEC rate
(*iii*) During night time : the night time rate

Consumers who have not opted for operation during pepk times, and are only using electricity for the purposes mentioned in this section will not be charged the PLEC rate for demand charge.

## SCHEDULE-LARGE INDUSTRIAL POWER SUPPLY INCLUDING MINI STEEL MILLS LS

**1. Applicability :**

This schedule is applicable to all industrial power consumers with connected load exceeding 100 kW including mini steel mills/steel rolling and re-rolling mills/calcium carbide/ ferro sillicon units and arc/induction furnances and also the information Technology industry, limited only to IT parks recognized by the State/Central Government and all industrial consumers not covered by schedule "(WPS)" or schedule "(APS)".

**2 Character of service:**

A.C, 50 C/S, three phase, 1100 volts or above at the discretion of supplier.

**3 Tariff :**

Consumer Service Charge (Part-1) :

| *Description* | *Consumer Service Charge (Rs./month/consumer)* |
|---|---|
| LS | 100 |

Energycharge(part-2):

| *Description* | *Every Charge (paise/kVAh)* |
|---|---|
| LS | 190 |

Demand charge(Part-3)*

| *Description* | *Demand Charge (Rs./kVA/month)* |
|---|---|
| LS | 125 |

* *Demand charge would be levied on the actual maxmum recorded demand in a Month in aoy 30 minute interval in a Month or 80% of the contract demand whichever is higher.*

**4. Peak load exemption charges (PLEC) and peak load violation charges (PLVC):**

Part-1 : Demand charge of Rs. 150/kVA/month to be levied on the maximum-recorded demand during any 30 minute interval during the peak load hours or 80% of the contract demand, for peak load hours whichever us higher.

Part-2 : Energy Charge for consumption during peak load hours :

| *Description* | Peak load *exemption charge (paise/kVAh)* |
|---|---|
| LS supply | 235 |

For consumers who do not have the exemption but are found using the electricity during peak hours will have to pay the following Peak Load Violation Charge. This penal rate shall be applicable to the consumption during the peak load hours only. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

Peak load violation charges

| *Description* | *Peak load violation charge (paise/kVAh)* |
|---|---|
| LS supply | 470 |

**Note :—**

(*i*) Consumers having supply at 400 volts shall be charged 15 paise per kVAh over and above the energy charges prescribed above.

**5. Penalty for overdrawal :**

If a consumer exceeds the contract demand a penalty of Rs. 300 per kVA per month shall be levied on the part of the demand in excess of the contract demand.

**6. Night time concession :**

A night time concession of 20 paise unit on consumption of energy between 00.00 hours to 06.00 hours shall be given. This concession will be available only where electronic tri-vector meters have been installed.

**7. Rebate for supply at higher voltages :**

The consumers who take supply under this Schedule at voltage higher than 11kV shall get the rebate at the following percentages on the amount of energy charges. No rebate shall however be given on the Consumer Service charge or Demand Charge.

| *Supply Voltage* | *Rebate* |
|---|---|
| 33kV | 1.5% |
| 66kV | 2% |
| 132kV | 2.5% |
| 220kV | 3% |

**8. Factory lighting and colony supply :**

All consumption for bonafide factory lighting *i.e.* energy consumed in factory premises including factory building, its offices, stores, time keeper office, canteen, library, staff dispensary welfare centres and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use of residential/staff quarters and street lighting of colony shall also be charged under this tariff schedule.

Such consumption shall be charged for the energy consumed at the following rates, irrespective of whether the consumer has opted for peak time consumption or not :

| | |
|---|---|
| During normal times | : normal rate |
| During peak times | : the PLEC rate |
| During night-time | : the night time rate |

Consumers who have not opeted for operation during peak times, and are only using electricity for the purposes mentioned in this section will not be charged the PLEC rate for demand charge

## SCHEDULE—WATER PUMPING SUPPLY WPS

**1. Applicability :**

This schedule is applicable to Government connections for water and irrigation pumping.

**2. Character of service :**

(*a*) A.C. 50 C S. 3-phase. 400 Volts or 11000 volts or above at the discretion of the supplier.

(*b*) Supply shall be given normally at 400 volts for loads up to 100 kW.

3. Tariff :

Consumer Service Charge (Part-1):

| *Description* | *Consumer Service Charge (Rs. month/consumer)* |
|---|---|
| All consumers | 25 |

Energy Charge (Part-2):

| *Description* | *Energy Charge paise/unit* |
|---|---|
| Supply at less than 11kV | 235 |
| Supply at 11kV and above | 225 |

**4. Peak load exemption charges (PLEC) and peak load violation charges (PLVC).**

Consumers who wish to avail this facility will have to get the tri-vector meters/installed, if not already installed, capable of recording consumption at 30 minutes interval.

The following PLEC would be applicable for consumption during peak load hours only.

Part-1 : Demand charge of Rs. 140/kVA/month to be levied on the maximum recorded demand in any 30 minute interval during the peak load hours or 80% of the contract demand, for peak load hours, whichever is higher.

Part-2 : Energy Charge for consumption during peak load hours

| Description | Peak load exemption charge (paise/unit) |
|---|---|
| Supply at less than 11kV | 280 |
| Supply at 11kV and above | 270 |

For consumers who do not have the expemption but are found using the electricity during peak load hours will have to pay the following Peak Load Violation Charge. The penal rate shall be applicable only to the consumption during peak load hours. Consumers violating the peak load hour restriction and not having meters capable of distinguishing between peak time and other consumption will be charged the penal rate for 50% of the entire consumption for the month. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

Peak load violation charges

| Description | Peak load violation charge (paise/unit) |
|---|---|
| Supply at less than 11kV | 560 |
| Supply at 11kV and above | 540 |

**4. Night time concession :**

A nitht-time concession of 20 paise/unit on consumption of energy between 00.00 hours to 06.00 hours shall be given. This concession will be available only where electronic trivector meters have been installed.

**5. Pump house lighting :**

All consumption for bonafide Pump House lighting shall be included for charge under the above tariff.

**6. Power factor surcharge :**

Power factor surcharge shall be applicable as per the provisions under "Part-I-General" of this notification.

**7. Rebate for supply at higher voltage :**

The consumers who take supply under this Schedule at voltage higher than 11kV shall get the rebate at the following percentages on the amount of energy charges. No rebate shall however be given on the Consumer Service charge or Demand Charge.

| Supply Voltage | Rebate |
|---|---|
| 33kV | 1.5% |
| 55kV | 2% |
| 132kV | 2.5% |
| 220kV | 3% |

## SCHEDULE-AGRICULTURAL PUMPING SUPPLY APS

**1. Applicability:**

This schedule is applicable to Irrigation Pumping loads with connected load not exceeding 20 kW. Private Irrigation loads in individual names above 20 kW shall also be covered under this tariff.

**Note :**

(*i*) For other Industrial type of Agricultural loads such as Air Conditioning for growing of mushrooms etc., threshers, heaters for defrosting in orchards or providing flood lights for scaring away the birds and animals and spraying etc. in the field, the relevant industrial tariff shall apply.

(*ii*) Agricultural pumping consumers in rural areas are allowed to run chaff cutters, threshers and cane crushers on their motors under this schedule subject to the condition that the total connected load does not exceed 20 kW. However, in case of separate connection for the above purpose the relevant industrial tariff shall be applicable. Also in case of any other industrial load being run along with "AP" supply, the entire supply will be billed under relevant industrial tariff.

**2. Character of service**

A.C 50 C/S, single phase, 230 Volts or 3-phase 400 volts.

**3. Tariff :**

Consumer Service Charge (Part-1) :

| Description | Consumer Service Charge (Rs./month/consumer) |
|---|---|
| All consumers | 20 |

Energy Charge (Part-2)

| Description | Energy Charge (paise/unit) |
|---|---|
| All consumption | 50 |

**4. Peak load exemption charges (PLEC) and peak load violation charges (PLVCC)**

Consumers who wish to avail of this facility will have to get tri-vector meters installed that are capable of recording energy consumption at 30 minutes interval.

The followtng PLEC would be applicable for consumption during peak load hours only.

Part-1 : Demand charge of Rs. 85/kVA/month to be levied on the maximum-recorded demand or 80% of the contract demand, for peak load hours, whichever is higher.

Part-2 : Energy Charge for consumption during peak load hours

| Description | Peak load exemption charge (paise/unit) |
|---|---|
| AP Supply | 60 |

For consumers who do not have the exemption but are found using the electricity during the peak load hours will have to pay the following Peak Load Violation Charge. This penal rate will be applicable to the consumption during the peak load hours only. Consumers violating the peak hour restriction and not having meters capable of distinguishing between peak time and other consumption will be charged the penal rate for 50% of the entire consumption for the month. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

Peak load violation charges

| Description | Peak load violation charge paise/unit |
|---|---|
| AP Supply | 120 |

**5. Pump house lighting :**

Only one bulb of not more than 100 watts shall be allowed for pump house lighting and consumption for lighting shall also be charged at the above agricultural tariff but will be metered separately.

**6. Power factor surcharge :**

Power factor surcharge shall be applicable as per the provisions under "Part-1 General" of this notification.

## SCHEDULE—BULK SUPPLY
## BS

**1 Applicability:**

This schedule is applicable to general or mixed loads exceeding 20kW to M.E.S. and other Military establishments, Railway, Central PWD Institution, Construction power for Hydro-Electric projects, Hospital Departmental colonies, A.I.R. Installations, Aerodromes and other similar establishments/Institutions where further distribution to various residential and non-residential buildings is to be undertaken by the consumer.

**Character of service :**

A. C., 50 C/S, 3-phase, 400 Volts or 11000 volts or above as may be given at the discretion of the supplier.

**3. Tariff :**

Conusmer Service Charge (Part-1)

| *Description* | *Consumer Service Charge (Rs./month/consumer)* |
|---|---|
| All consumer | 25 |

*Energy Charge (Part-2):*

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| Supply at less than 11kV | 295 |
| Supply at 11kV and above | 285 |

**4. Rebate for Supply at higher Voltage ..**

The consumers who take supply under this Schedule at voltage higher than 11kV shall get the rebate at the following percentages on the amount of energy charges. No rebate shall however be given on the Consumer Service charge or Demand Charge

| Supply Voltage | Rebate |
|---|---|
| 33kV | 1.5% |
| 66kV | 2% |
| 132 kV | 2.5% |
| 220kV | 3% |

## SCHEDULE-STREET LIGHTING SUPPLY
## SLS

**1. Applicability :**

This schedule is applicable for Street Lighting system including traffic control signal systems on roads and Park lighting in Municipalities, Panchayats and Notified Committee areas.

**2. Character of Service :**
AC, 50 C/S, single phase, 230 volts or 3 phase, 400 volts.

**3. Tariff :**

Consumer Service Charge (Part-1):

| *Description* | *Consumer Service Charge (Rs./month/consumer)* |
|---|---|
| All consumer | 25 |

Energy Charge (Part-2)

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| All Consumption | 235 |

**4. Line maintenance and lamp renewal charges :**

Line Maintenance and lamp renewal charges shall be charged in addition to the energy charges.

These charges shall be charged at the following rates :

(A) Where the bulbs, tubes etc. are to be provided and replaced at the cost of the Board, the line maintenance and renewal charges shall be levied as under.

| *Description* | *Charge Rs./point/month* |
|---|---|
| (*a*) Bulbs all wattage | 14 |
| (*b*) Mercury vapour lamps up to 125 watt | 40 |
| (*c*) Mercury vapour lamp 126 watt to 400 watt | 95 |
| (*d*) Fluorescent 2ft. 20 watt single tube fixture | 21 |
| (*e*) Fluorescent 2ft. 20 watt double tube fixutre | 35 |
| (*f*) Fluorescent 4ft. single tube fixtue | 3 |
| (*g*) Fluorescent 4 ft double tube fixture | 48 |

**Note :**

(*a*) For special type of fixtures like sodium and neon vapour lamps. fittings or any other fixtures not covered above, the material for maintenance of the fixtures and the lamps for replacement shall be provided by the Public Lighting consumers themselves and only replacement charges shall be levied

(*b*) When the bulbs/Mercry vapour lamps/tubes and other accessories are provided by the Public Lighting consumers and only replacement is to be done by the Board, Line

Maintenance and lamp renewal charges shall be as under :

| *Description* | *Charge Rs./point/month* |
|---|---|
| Bulbs | 7 |
| Tubes and MVL etc. | 12 |
| Sodium/Neon Vapour lamps or any other special fixture not covered above | 18 |

## SCHEDULE—TEMPORARY METERED SUPPLY TM

**1. Applicability :**

This schedule is applicable to all loads of temporary nature including exhibitions, touring talkies, circuses, fairs, melas, marriages, festivals, temporary agricultural loads such as wheat thrashers, paddy thrashers, temporary supply for construction purposes including civil works by Government departments and other similar purposes for temporary needs only.

**2. Character of Service :**

AC, 50 C/S, single phase, 230 volts or 3 phase, 400 volts or 11kV and above.

**3. Tariff :**

Consumer Service Charge (Part-1) :

| *Description* | *Consumer Service Charge (Rs./month/consumer)* |
|---|---|
| All consumers | 50 |

Energy Charge (Part-2) :

| *Description* | *Energy Charge (paise/unit)* |
|---|---|
| All consumption | 500 |

**Note :**

(*i*) Temporary supply shall be distinctly wired on a separate circuit and measured with a separate meter in all cases.

**4. Service and meter rentals etc. :**

In case the meter and service is provided by the supplier the consumer shall be charged rate as prescribed in the schedule of general and service charges.

**5. Erection and dismantling charges :**

Actual labour charges (*i. e.* erection & dismantling charges) plus 50% departmental charges on the cost of labour charges, shall be recoverable from the consumers in addition to the rentals on service & meter etc. irrespective of the fact whether material is provided by the consumer or by the Board.

**6. Advance consumption deposit :**

Advance consumption deposit will be charged at Rs. 400 per kW or part thereof of connected load.

**7. Power factor surcharge :**

Power factor surcharge shall be levied as per provisions under "(Part-1-General" of this notification.

Annexure-5.2

## SCHEDULE OF GENERAL AND SERVICE CHARGES

| S. No. | Description | Rates of charges | |
|---|---|---|---|
| | | Proposed | Approved |
| 1 | 2 | 3 | 4 |
| 1. | (A) Meter Inspection and Testing Charges : | | |
| | (i) Single Phase | Rs. 60/- per meter | Rs. 50/- per meter |
| | (ii) Poly phase (LT) | Rs. 200/- | Rs. 200/- |
| | (iii) HT or special meter (MDI or Trivector meter) | Rs. 500/- Rs. 1000/- with CT/PT combined unit. | Rs. 500/- Rs. 1000/- with CT/PT combined unit. |
| | (B) Testing Charges of Transformers & other equipment of private parties: | | |
| | (I) Protective Relays : Testing including current and Time setting of protective relays. | Rs. 500/- per relay. | Rs. 1000/- per relay. |
| | (II) Power and Distribution Transformers: | | |
| | (i) Insulation resistance tests of winding. | Rs. 800/- per transformer. | Rs. 700/- per transformer |
| | (ii) General checking of breather and other accessories. | Rs. 400/- per transformer. | Rs. 350/- per transformer. |
| | (iii) Dielectric strength test of oil | Rs. 200/- per sample. | Rs. 200/- per sample, |
| | (iv) Testing of buchuoltz relay and temperature indicators functioning. | Rs. 800/- each | Rs. 700/- each |
| | (III) 400 volts and 11/33kV. | | |
| | (i) General checking of breaker and testing of the tripping mechanism. | Rs. 1000/- each | Rs. 750/- each |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| (IV) | Current transformer and Potential transformers and meters. | | |
| | (*i*) Testing of single phase LT current transformer. | Rs. 150/- each | Rs. 150/- each |
| | (*ii*) Current Testing of 3 phase LT current tronsformer. | Rs. 400/-each | Rs. 400/- each |
| | (*iii*) Testing of single phase 11kV & 33kV current transformers. | Rs. 500/- each | Rs. 500/- each. |
| | (*iv*) Testing of three phase 11kV & 33kV current transformers. | Rs. 1000/- each | Rs. 1000/- each |
| | (*v*) Testing and recalibration of single phase LT energy mter. | Rs. 80/- per meter | Rs. 80/- per meter |
| | (*vi*) Testing and recalibration of three phase energy meter without CT. | Rs. 300/- per meter | Rs. 300/- per metre |
| | (*vii*) Testing and recalibration of three phase energy meter With CT. | Rs. 600/- per meter. | Rs. 600/- per meter |
| | (*viii*) Testing and recalibration of HT/EHT metering equipment. | Rs. 2000/- per meter. Rs. 2000/- per CT/PT combined unit. | Rs. 1500/- per meter. Rs. 2000/- per CT/PT combined unit. |
| | (*ix*) Testing and recalibration of maximum demand indicator. | Rs. 600/- per meter. | Rs. 600/- per meter |
| | (*x*) Teeting & adjustment of voltmeter/ammeter. | Rs. 150/- per meter. | Rs. 150/- per meter |
| (V) | Checking of Capacitors (other than initial checking) on consumer's request: | | |
| | (*a*) At 400 volts | Not proposed | Rs. 100/- per job |
| | (*b*) At 11kV and above. | Not proposed | Rs. 200/- per job |
| (VI) | General: | | |
| | (*i*) Dielectric strength of oil of various. equipment | Rs. 200/- per sample. | Rs. 200/- per sample. |
| | (*ii*) Earth test of sub station | Rs. 200/- per earth | Rs. 200/- per earth |
| | (*iii*) Insulation resistance of cables/insulation of various equipment installations. | Rs. 200/- per cables/equipment. | Rs. 200/- per cables/equipment |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| | (VI) Visiting charges: Visiting charges for Officers & staff to consumers premises for testing of equipment. | Rs. 1500/- per day for complete team | Rs. 1500/- per day for complete team |
| | (C) Testing charges for complete sub station of private parties before the release of connections or routine periodical inspections: | | |
| | (i) Complete testing of 11/22 kV connections | Rs. 5000/- | Rs. 5000/- |
| | (ii) Complete testing of 33kV connections. | Rs. 10000/- | Rs. 5000/- |
| 2. | Changing the position of meter at the request of consumer : | | |
| | (i) Single phase | Rs. 40/- | Rs. 40/- |
| | (ii) Poly phase (LT) | Rs. 200/- without CTs. Rs. 400/- with CTs. | Rs. 200/- without CTs. Rs. 400/- with CTs. |
| | (iii) HT or special meter | Rs. 1000/- | Rs. 1000/- |
| 3. | Resealing charges : | | |
| | (i) Meter cup board | Rs. 20/- | Rs. 20/- |
| | (ii) Meter cover or terminal cover (single phase). | Rs. 100/- | Rs. 100/- |
| | (iii) Meter cover or terminal cover (three phase). | Rs. 300/- | Rs. 300/- |
| | (iv) Cutout (where it has been independently sealed) | Rs. 20/- | Rs. 20/- |
| | (v) Maximum demand indicator. | Rs. 500/- | Rs. 500/- |
| | (vi) Potential fuse(s) time switch/CT chamber. | Rs. 500/- | Rs. 500/- |
| 4. | Monthly meter/equipment rentals : | | |
| | (i) Single phase energy meter low tension. | Rs. 8/- per month per meter. | Rs. 10/- per month per meter. |
| | (ii) Polyphase energy meter low tension (up to 50 Amps). | Rs. 20/- per month per meter | Rs. 25/- per month per meter |
| | (iii) (a) Polyphase low tension meters with CTs (upto 20 kW load). | Rs. 30/- per month per meter | Rs. 30/- per month per meter |
| | (b) Polyphase low tension meters with CTs (above 20 kW load). | Rs. 40/-per month per meter | Rs. 30/- per month per meter. |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| | (*iv*) Polyphase 11kV meter with CT/PT without any breaker of HPSEB. | Rs. 500/- per month per meter. | Rs. 500/- per month per meter. |
| | (*v*) Polyphase 11kV meter with CT/PT with one 11kV breaker of HPSEB. | Rs. 3000/- per month per meter. | Rs. 3500/- per month per meter. |
| | (*vi*) Polyphase 33, 22 kV meter with CT/PT without any 33,22kV breaker of HPSEB' | Rs. 1000/- per month per meter | Rs. 700/- per month per meter |
| | (*vii*) Polyphase 33, 22 kV meter with CT/PT with one 33, 22 kV breaker of HPSEB. | Rs. 6000/- per month per meter | Rs. 7000/- per month per meter. |
| | (*viii*) Polyphase meter with CT/PT with or without circuit breaker of voltage 66kV and above: | | |
| | (*a*) 66kV withCT/PT | Rs. 6000/- per month per meter or 2% of the capital cost whichever is higher. | Rs. 1300/- per month per meter. |
| | (*b*) 66kV with circuit breaker and CT/PT. | | Rs. 13,500/- per month per meter. |
| | (*c*) 132kV with CT/PT | | Rs. 2500/- per month per meter, |
| | (*d*) 132kV with circuit breaker and CT/PT. | | Rs. 20,000/- per month per meter |
| 5. | Reconnection of supply: | | |
| | (*i*) Small power industrial consumers. | Rs. 100/- | Rs. 100/- |
| | (*ii*) Medium power industrial consumers | Rs. 500/- | Rs. 500/- |
| | (*iii*) Large power industrial consumers. | Rs. 200/- per 100kW subject to a maximum of Rs. 3000/- | Rs. 1000/- |
| | (*iv*) All other categories of consumers. | Rs. 40/- | Rs. 40/- |
| 6. | Fuse replacement: | | |
| | (*i*) Replacement of fuse(s) pertaining to the Board/Consumers. | Rs. 5/- | Rs. 5/- |
| 7. | Testing consumer's installation: | | |
| | (*a*) The first test and inspection of a new installation or of an extenstion to the existing installation. | Nil | Nil |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| | (b) For every subsequent visit for the test and inspection of a new installation or of an extension to the existing installation. | Rs. 60/- for every 100kW or part thereof of the connected load applied for subject to a minimum of Rs. 60/- & maximum of Rs. 2000/- | (i) Single phase Rs. 60/-<br>(ii) Three phase LT Rs. 100/-<br>(iii) HT Rs. 500/- |
| 8. | Replacement of meter card : | | |
| | (i) Domestic and non residential categories. | Rs. 10/-in each case | Rs. 10/- in each case |
| | All other categories of consumers | Rs. 20/- in each case | Rs. 10/- in eahc case |
| 9. | Replacement of meter glass : | | |
| | (i) Replacement of broken glass of meter cup board when the consumer is considered to have broken it | Rs. 20/- | Nil |
| | (ii) Replacement of broken glass of meter when the same has been tempered with or broken by consumer: | | |
| | (a) Single phase | Rs. 100/- | Rs. 500/-* |
| | (b) Three phase | Rs. 200/- | Rs. 1500/-* |
| 10. | Supply of duplicate copies of the bill/review of bills : | | |
| | (i) Review of bills | | |
| | (a) Domestic and non residential. | Rs. 6/- per bill | Nil |
| | (b) Small Power and Agriculture Pumping. | Rs. 30/- per bill | Nil |
| | (c) Medium Industrial power supply. | Rs. 60/- per bill | Nil |
| | (d) Large Industrial power supply. | Rs. 150/- per bill | Nil |
| | (ii) Supply of duplicate copies of bills: | | |
| | (a) Domestic and non residential. | Rs. 3/- per bill | Rs. 5/- per bill |
| | (b) Medium & large power supply. | Rs. 20/- per bill | Rs. 5/- per bill |
| | (c) All other categories | Rs. 10/- per bill | Rs. 5/- per bill |
| | (iii) Supply of duplicate copies of Demand notice : | | |
| | (a) Domestic consumers | Rs. 15/- | Rs. 10/- |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| | (*b*) Non residential consumers. | Rs. 60/- | Rs. 10/- |
| | (*c*) Small Industrial & Agriculture consumers. | Rs. ·60/- | Rs. 10/- |
| | (*d*) Medium Industrial consumers. | Rs. 100/- | Rs. 10/- |
| | (*e*) Large Industrial and other categories of consumers. | Rs. 200/- | Rs. 10/- |
| | (*iv*) Supply of detailed print out of the meter recording in case of large Industrial consumers. | Not proposed | Rs. 20/- |
| 11. | Attendants for functions; (*i*) Deputing attendants (line staff) for all functions. | Rs. 100/- per attendant per day per function. | Rs. 250/- per attendant per day per function limited to 8 hours per day. |
| 12. | Advance Consumption Deposit ; (*i*) Domestic | Rs. 35/- per 500 Watts or part thereof of the connected load subject to a minimum of Rs. 50. | Rs. 100/- per kW or part thereof of the connected load. |
| | (*ii*) Non Domestic/Non Commercial/Commercial. | Rs. 70/- per 500 Watts or part thereof of the connected load. | Rs. 200/- per kW or part thereof of the connected load. |
| | (*iii*) Agriculture (upto 20 kW) | Rs. 70/- per kW or part thereof of the connected load. | Rs. 100/- per kW or part thereof of the connected load. |
| | (*iv*) Small Power industrial | Rs. 150/- per kW or part thereof of the connected load. | Rs. 300/- per kW or part thereof of the connected load. |
| | (*v*) Medium Power industrial (up to 21 kW to 100 kW) Rate per kW or part thereof connected load for the industries which are run normally in: | | |
| | (*a*) Single shift | Rs. 250/- | Rs. 300/- |
| | (*b*) Two shifts | Rs. 350/- | Rs. 300/- |
| | (*c*) Three shifts | Rs. 425/- | Rs. 300/- |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| | (vi) Large Power industrial (above 100kW) Rate per kW or part thereof connected load for the industries which are run normally in: | | |
| | (a) Single shift | Rs. 350/- | Rs. 500/- |
| | (b) Two shifts | Rs. 500/- | Rs. 500/- |
| | (c) Three shifts | Rs. 600/- | Rs. 500/- |
| | (vii) Public lighting | Rs. 300/- per kW or part thereof of the connected load. | Rs. 300/- per kW or part thereof of the connected load. |
| | (viii) Bulk supply | Rs. 450/- per kW or part thereof of the connected load. | Rs. 400/- per kW or part thereof of the connected load. |
| 13. | Monthly Service Rentals : | | |
| | (i) Single phase individual service connections with connected load up to 2kW: | | |
| | (a) Up to 30 meters | Nil | Nil |
| | (b) Beyond 30 meters | 40 paise per meter in excess of 30 meters. | 40 paise per meter in excess of 30 meters. |
| | (ii) Single phase individual service connections with connected load up more than 2kW and up to 5kW : | | |
| | (a) Up to 30 meters | Nil | Nil |
| | (b) Beyond 30 meters | 50 paise per meter in excess of 30 meters. | 50 paise per meter in excess of 30 meters. |
| | (iii) Single phase individual service connections with connected load exceeding 5kW: | | |
| | (a) Up to 30 meters | Nil | Nil |
| | (b) Beyond 30 meters | 70 paise per meter in excess of 30 meters. | Re. 1/- per meter in excess of 30 meters. |
| | (iv) All individual three phase service connections for all categories of consumers: | | |
| | (a) Up to 30 meters | Nil | Nil |
| | (b) Beyond 30 meters | 2% of the capital cost. | 2% of the capital cost. |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| 14. | Cost of Application/Agreement Form and Wiring Contractor's test report forms : | | |
| | (*i*) Domestic supply | Rs. 10/- per copy per form. | Rs. 10/- per copy per form. |
| | (*ii*) Industrial supply (Small, Medium and Large). | Rs. 40/- per copy per form. | Rs. 10/- per copy per form. |
| | (*iii*) For all other categories | Rs. 20/- per copy per form. | Rs. 10/- per copy per form. |

*Without prejudice to the Board's right to recover the estimated cost of theft of energy.

## 6. Guaranteed standards

6.1. The tariffs as determined by the Commission in this order are as per the functions conferred under Section 22(1) of the ERC Act. As specified under Section 22(1), the Commission has followed the provisions contained in Section 29 of the ERC Act. Good performance by the utility and safeguard of interest of consumers are explicit criteria provided under Section 29. The relevant sub-sections are reproduced below:—

(*i*) the factors which would encourage efficiency, economical use of the resources, good performance, optimum investments, and other matters which the State Commission considers appropriate for the purposes of this Act [(Section 29(d)].

(*ii*) the interests of the consumers are safeguarded and at the same time, consumers pay for the use of electricity in a reasonable manner based on the average cost of supply of energy [(Section 29 (*d*)].

6.2. The HPERC's guidelines for Revenue and Tariff Filling, Section 3.2, prescribes that the rationalization of energy prices must be carried out at internationally acceptable norms of efficiency and must be accompanied by similar Standards of Supply. The guidelines were prescribed with the rationale that the prices are always in relation to the delivered quality. Standards and Benchmarks should, therefore, be set by the Utility to improve its services including maximum time of response to important aspects of service. In the tariff petition filed by the Board for the determination of Distribution and Retail Supply Tariff, the Board had not submitted these details as required by the guidelines. The Commission, therefore, directed the Board *vide* its order dated May 9, 2001, to file the Standards and Benchmarks as per the provision of HPERC's guidelines for Revenue and Tariff filing. The Board *vide* its letter No. HPSEB/CE/(Comm)/SERC/2001-2357, dated June 8, 2001, prayed for waiver for filing the Standards and Benchmarks on the grounds that the Board was in the process of preparation of its own Electricity Supply and Distribution Codes as already directed by the Commission, which would lay down the rules/guidelines and standards to be followed.

6.3 The Board *vide* its letter No. HPSEB : CE (Comm) /SERC /2001-678, dated August 3, 2001, sought extension in time for submission of these codes upto August 20, 2001, which was duly granted. However, HPSEB *vide* its letter No. HPSEB/CE (Comm)/SERC/2001/-5245, dated August 20, 2001, sought further extension in time for submission of these codes but filed the Standards and Benchmarks for the approval of the Commission.

6.4 The Public Notice issued by the Commission, inviting objections/suggestions on the Transmission and Bulk Supply Tariff petition which was published in the leading newspapers

on August 25, 2001 also sought objections/suggestions from the various stakeholders on the Standards and Benchmarks before September 10, 2001. No objection was filed by any of the stakeholders except PHD Chambers of Commerce (PHDCOC).The objections raised by the PHDCOC were mainly on the following points and these have been addressed while finalizing the Order of the Commission :

(*i*) The time response for attending the various types of complaints for urban and rural consumers should be the same.

(*ii*) Investigation of voltage complaints should be on immediate basis since the fluctuations adversely affect the precision machinery and product quality.

(*iii*) Responding to consumer queries and meter problems etc. should be on priority and take lesser time than proposed.

6.5. The Standards and Benchmarks filed by the Board *vide* their aforesaid letter dated August 20, 2001, do not provide for the Complaint Handling Mechanism and procedure for establishing the violations of the proposed Standards and Benchmarks beyond a reasonable doubt. The Board was, therefore directed to do so by the Commission *vide* tetter No. HPERC 031/ED (TFA)/AM/MS/2001-1415, dated September 6, 2001, and also to propose corresponding compensation, howsoever token may be, to be paid to the consumer for the proven violations. The matter was also discussed with the Members of the Board in a meeting attended by Member (F&A) and Member (Operation) on October 8, 2001 when the later was requested to make necessary proposal in this regard in a day or two so that the Commission could consider and approve the Standards in their entirety.

6.6. The Board, *vide* Chief Engineer Commercial letter No. HPSEB/CE (Comm)/SERC/2001—7245, dated 12-10-2001, has furnished reasons for its inability to submit the requisite proposal and prayed for the grant of reasonable time period for submission of the information. The matter has been carefully considered by the Commission.The Commission is of the firm view that the Tariff order shall be incomplete without the Standards and Benchmarks to be followed by the Board in rendering efficient service to the consumers. The Commission is of the view that the Standards and Benchmarks must be complemented with corresponding compensation, howsoever token or symbolic, for the proven violations. This would not only lead to strict adherence to the proposed Standards and Benchmarks and enforce some semblance of accountability but also inspire consumer confidence in the Board.

6.7. The Commission has accordingly approved the following Standards and Benchmarks together with the token compensation for the proven violations as given in table 6.1. The Commission further directs the Board to propose and submit to the Commission by December 31, 2001,the Complaint Handling Machanism and procedure for establishing the violations beyond a reasonable doubt. The Commission shall approve the same within 30 days and the approved Standards and Benchmarks shall then come into force *w.e.f.* February 1, 2002.

Table 6.1 : Standards and Benchmarks :

| Sl. No. | Nature of Service | Approved performance Level (Maximum Time) | Token Compensation in case of established violation |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| A. | **Electricity Distribution—Guaranteed Standards in Operation :** | | |
| 1. | Responding to mains fuse failure : | | |
| | (*i*) Cities and Towns : | | |
| | (*a*) Complaints received between 9 A.M. to 9 P.M. | Within 6 hours | Rs. 10/- |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| | (b) Complaints received between 9 P.M. to 9 A.M. | Within 12 hours | Rs. 10/- |
| | (ii) Rural areas : | | |
| | Complaints received any time during the day. | Within 24 hours | Rs. 10/- |
| 2. | Restoring Supply after a fault. | Within 24 hours<br>Note :—<br>1. Actual time limit for restoration of supply shall depend on the extent of damage/breakdown of lines/sub-station equipment etc. However, such complaints shall be attended to immediately on priority and Supply restored in the minimum possible period.<br>2. Where an alternate source is available, supply shall be restored within the shortest possible period from such source. | Rs. 20/- per affected consumer. |
| 3. | Estimating charges for new and additional Supply and issue of Demand Notice to the Consumer: | | |
| | (i) Cities and Towns | Within 3 weeks | Rs. 10/- |
| | (ii) Rural areas | Within 4 weeks | Rs. 10/- |
| 4. | Notice of Supply interruption (11kV & above): | | |
| | (i) Cities and towns | 24hrs. notice in advance through local media/Press. | NIL |
| | (ii) Rural areas | By written notice to be Displayed 24hrs. in advance in the local Board's office. | NIL |
| 5. | Investigation of voltage complaints and reply to the consumer. | Within 4 weeks of receipt of complaint. | Rs. 10/- |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| **B. Electricity Supply—** | | | |
| | **Guaranteed Standards :** | | |
| 1. | Provision of Supply and Meter after the deposit of charges by the consumer and compliance of other conditions stipulated in the Demand Notice. | (*i*) Small and Medium industrial/ Agriculture Supply connections on LT : 3 months | Rs. 100/- |
| | | (*ii*) Demestic/Commercial/NDNC supply .. 1 month | Rs. 100/- |
| | | (*iii*) HT consumers : | |
| | | HT connections and others not covered under (*i*) and (*ii*) above : | Rs. 100/- |
| | | As may be decided by C.E. (Op.) concerned in view of work involved in each case. However, where the time taken is more than a year, the Commission shall be informed with reasons. | |
| | | *Note* : | |
| | | 1. Time period specified at (i) to (*iii*) above is maximum and connections may be released in a minimum possible time as per the availability of funds & materials. | |
| | | 2. In view of the time period specified above the concerned Board Officers shall ensure that in the case of expected non-availability of funds/materials the matter is taken up with the higher authorities well in time. | |
| 2. | Responding to meter problems including shifting of meter after due payment' | | |
| | (*i*) Cities and Towns | Within two weeks | Rs. 10/- |
| | (*ii*) Rural Areas | Within three weeks | Rs. 10/- |
| 3. | Responding to consumer's query regarding charges/payment. | A substantive reply shall be furnished within four weeks. | Rs. 10/- |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| C. | **Electricity Supply—Overall standards in Operation :** | | |
| 1. | Reconnection of consumers disconnected for non-payment. | Within 24 hours of the payment of bills. | Rs. 10/- |
| D. | **General :** | | |
| | (*i*) Making and keeping Regular Appointments. | (*a*) At Sub-divisional Level —Twice a week | Nil |
| | | (*b*) At Divisional Level —Once a week | Nil |
| | | (*c*) At Circle Level —Once a fortnight | Nil |
| | | (*d*) At C. E. Level —Once a month | Nil |
| | | *Note.*— | |
| | | (*i*) Days and time of appointments should be notified by the Board on uniform basis for all offices throughout the State. | |
| | | (*ii*) Days and time of appointment shall be displayed outside the room of the Officer concerned and also printed on the backside of the bills. | |
| | (*ii*) Making and keeping Special Appointments | Such appointments may be had at the above levels at the specific request of any consumer. | Rs. 10/- |

This should be understood that the token compensation for the proven violations is in no way intended to compensate the consumers for the loss otherwise caused to them and for which other recourses are available. This is predominantly intended to bring in accorountability and responsiveness towards the consumers and psycho-social pressures on the staff of the Board in the true discharge of their duties.

**Lest the shortage of materials is cited as a major reason for non compliance of the approved Benchmarks and Standards, the Commission hereby directs the Board to ensure that the Material Management Policy and practices of the Board including calendar of various activities, approvals, tendering, placement of purchase orders, delivery schedule and payments etc. are streamlined so as to provide necessary inputs of right quality at the right time to facilitate faithful implementation and compliance of the approved Standards and Benchmarks by the field officers. Compliance Report on this direction shall be submitted by the Board by December 31, 2001.**

## 7. DIRECTIONS

The Commission has given a number of directions to the Board, both at the time of the public hearings and in the preceding chapters of this order. These have been compiled and reproduced in this chapter for easy reference. This Chapter is divided into two parts. The first part deals with directions given by the Commission during the course of hearings. Directions given in the tariff order have been set out in part-2.

**Part 1 : Directions given during the course of hearings :**

The directions given by the Commission during the hearings are set out below. In sum cases response from the Board has been received and requires only a view to be taken by the Commission. Responses wherever received from the Board have been, therefore, discussed along with the directions and the Commission's views.

**Unbundled Costs :**

7.1. The Commission on September 21, 2001, directed the Board to take urgent steps to build a credible and accurate database with unbundled costs and expenditure between the three businesses of generation, transmission and distribution as well between the various customer classes to enable the stakeholders to focus on these costs and expenses and have rational basis for the determination of tariffs under performance based regime with some regulatory certainty. Next tariff petition must be supported by an accurtate and credible data base with appropriate MIS.

7.2. In the affidavit dated October 3, 2001, the Board has stated that it will not be able to provide this information by the next tariff petition and that it proposes to comply with this direction by March 31, 2003.

7.3. The Commission does not accept the plea of the Board and reiterates its direction that this information must be provided by the next tariff petition because of the critical nature of this information.

**Transmission and Distribution Loss :**

7.4 The Commission on September 18,2001 directed the Board to submit a plan by March 31,2002 for reducing losses, both technical and non-technical together with relevant load flow studies and details of investment requirement to achieve the planned reductions. The Commission observed in its interim order on September 20, 2001 that investments must aim at reducing the T&D losses and better quality of supply and service to the consumers as it happened in the case of Palampur area which has mixed domestic and commercial loading. The strategy can be considered for adoption elsewhere also to produce similar results.

The Board in its affidavit of October, 3,2001 has undertaken to comply with this directon of the Commission.

**Employee Cost :**

7.5 The Commission on September 18,2001, directed the Board to submit by March 31,2002, plans, both short-term and long-term for rationalization of existing manpower for improvements in efficiency through scientific engineering resources management, improving and updating the organization strategies & systems and skills of human resources for increased productivity.

The Board in its affidavit of October 3,2001 has agreed to comply and submit the above study by the above-mentioned date.

7.6 The Commission on September 20,2001, directed that the petitioner should give a very serious and deep thought to the methods for reducing the employee cost, as in the opinion of the Commission natural attrition was not the only solution to this burning problem.

The Board in its affidavit of October 3,2001. has agreed to consider the above in the overall context of the study on the rationalisation of the exisitng manpower.

**Demand Forest :**

7.7 The Commission during the hearing on September 18, 2001, directed the Board to submit a plan by September 30, 2003, for undertaking load research to determine the load profile of consumers supplied under each tariff. As part of this load study Board should collect infoımration on the demand from various consumers at different times of the day as well as consumption of energy during these intervals.

The Board in its affidavit dated October 3, 2001 has agreed to undertake this study by the above mentioned date.

**Financial Restructuring :**

7.8 The Commission on September 21,2001 directed the Board to commission a study on total financial management of the Board so as to determine an optimal capital structure, including key financial parameters. The Commission at the time of hearing has not given any date for this study but now directs the Board to submit this study by September 30, 2002.

The Board in its affidavit dated October 3, 2001 has undertaken to cary out the above study.

**Simulating Competitive Conditions :**

7.9 The Commission on September 22, 2001, directed the Board to submit a plan for introducing competitive conditions between the various circles in the generation, transmission and distribution departments of the utility together with implementation programme for the same, with the approval of the Commission, by December 31, 2001. This is in accordance with the Guidelines for Revenue and Tariff filing issued by the Commission.

7.10 In the affidavit dated October 3,2001, the Board has stated its inability to submit this information by December 31,2001 and requested for time till September 30,2003. The Commission believes that the competition among the various circles will be a first step towards improving efficiency of the Board and a plan for this can be submitted by December 31, 2001. Hence the Commission directs the Board to comply with the deadline already laid down *i. e.* December 31, 2001.

**Public Interaction :**

7.11 The Commission durting the course of hearing on September 22,2001, at Nahan directed the Board as follows. The guidelines for "Revenue & Tariff Filing" issued by the Commission also require the utility to develop and implement a comprehensive public interaction programme through Consultative Committees, preparation, publication and advertisement of material helpful to various consumer interest groups and general public on various activities of the Utility, dispute settelment mechanism, accidents, rights and obligation of the consumers etc. Accordingly the Board was therefore directed on September 22, 2001, to submit its plan for approval of the Commission and implement the same by March 31, 2002. The argument of the petitioner that a consultatave committee already existed does not meet the requirement as stipulated in the guidelines.

7.12 In its affidavit dated October 3, 2001, the Board has asked for additional time and requested that the submission of the plan will be possible only by December 31, 2002. The Commission strongly believes that submission of plan by March 31, 2002 is possible and the petitioner must comply with the deadline already laid down.

**Unproductive Assets :**

7.13 The Commission directed the petitioner to file an affidavit by October 24, 2001, to support its statement to the effect that the Board does not have any unproductive, unremunerative and idle assets. The affidavit has not been filed till the time of writing of this order. The Commission wishes to place on record its deep displeasure on the non-compliance of its direction It may be noted that in future such disregard of the Commission's orders will be dealt appropriately as specified under Section 44 of the ERC Act.

**Power Sector Reforms :**

7.14 During the course of hearing on September 19, 2001, at Shimla, the Commission directed the petitioner to submit by October 3, 2001, an affidavit giving the plan and the programme for implemenation of the reform process as envisaged in the MOU signed between the GoHP and the GoI, progress made in this direction and the milestones set out and achieved in respect of each area of reform.

The Commission directs the Board to strictly follow the guidelines and the programme for implementation of the reform process as envisaged in the MOU signed between Government of Himachal Pradesh and the Government of India, and should update the Commission every quarter on the progress made in this direction through a report. The first such report shall be submitted by the Board on or before January 15, 2002.

**Part 2 : Other Directions :**

**Fixed Assets and Capital work in progress :**

The Commission directs the Board to provide detailed and accurate information of fixed assets by March 31, 2002.

7.15 The Commission directs that the circle wise Fixed Assets Register be made available along with relevant details and accurate break-up of the fixed assets by March, 31, 2002.

7.16 The Board is directed to undertake an investigation of the amount reflected in the capital works in progress account and provide this information to the Commission by March 31, 2002.

7.17 The Commission believes that the information provided by the Board on its various assets is sketchy, insufficient and incomplete. Accordingly, the Commission directs the Board to conduct a physical verification of assets by an independent agency and submit a report on the Fixed Assets Register by September 30, 2002.

**Metering, billing and collection efficiency :**

7.18 The Commission directs the Board to accelerate the replacement of defective and deadstop meters as on Decmeber 31, 2001 and complete this work not later than March 31, 2002 and thereon clear the backlog on quarterly basis. All meters becoming defective and deadstop after March 31, 2002 shall be replaced only by electronic meters.

7.19 Timely reading, billing and collection from consumers can significantly improve the cash flow of the Board. The present system needs to be reviewed with a view to streamline

the process and minimize the time between the consumption and the receipt of revenue from such consumption. The Board should review the process of timely meter reading, billing and collection of revenue for streamling the process. The Board should also explore the possibility of out sourcing these tasks if found economical and efficient. Prepaid metering which eliminates the credit to the consumer for the energy used by him may also be considered for introduction in a phased manner. A report on the progress made in this direction should be provided along with the next tariff petition.

**Employee Cost :**

7.20 Apart from the directions given during the time of hearing the Board is directed to provide full details of employees retiring in the next one year with complete break-up of their pay in the next tariff petition.

**New Connections :**

7.21 The Commission directs the Board to examine the procedure for sanctioning new connections and prepare a proposal for simplification of the procedure and reduction in the delay in obtaining clearances from various departments and agencies for the purpose of approval of new applications for supply and submit the same to the Comission by March 31,2002.

**Marghinal cost pricing :**

7.22 The guidelines for "Revenue&Tariff filing" issued by the Commission requires the utility to conduct a study on marginal costs of supply, including time-differentiated marginal costs by (*a*) voltage leveles or, (*b*)consumer classes A written explanation of the methods used to calculate mariginal costs, along with all workpapers also needs to be provided. In addition, the statement shall include a comparision of the percentage of marginal costs recovered by the current and proposed tariff for each tariff category.

7.23 The Board in its tariff petition has requested for waiver of the requirement of a marginal cost study. The argument put forward by the Board is that they currently do not have the funding capabilities and the operational system to accurately carry out such study.

7.24 The Commission has accepted the Board's request for a waiver for the current year. However, for the next year the Board should provide all relevant information along with the marginal cost study. Accordingly. the Commission directs the Board to initiate a sudy to assess the marginal cost and submit the report to the Commission along with the next tariff petition.

**Wholesale supply of power & Malana Project :**

7.25 The Commission directs that an appropriate proposal for determination of tariff for wholesale supply of power from the Government to the Board should be made at the earliest.

7.26 During the course of the hearing some objectors have raised a point on the high capital, cost of the HPSEB's plants as compared to the Malana Plant. The Commission observes that this needs deep study and investigation with a view to build up learning and skill inventories of the Board to compete with the Malana project management. The Commission directs the Board to do a comparison of the capital cost of the Malana plant with the capital cost of the HPSEB's plants and submit a report on this by March 31, 2002.

**Compliance with the Guidelines issued by the Commission :**

7.27 In the Guidelines for revenue and tariff filing the Commission has asked the Board to submit various reports as part of the filing. The reports wherever provided by the Board have been found unsatisfactory and do not meet the requirements of the said guidelines. Accordingly the Commission directs the Board to submit the following reports complete and comprehensive in all respects, along with the next tariff petition as required in the 'Guidelines for Revenue and Tariff filing'.

(*i*) *Service rules and regulations policy :*

The Service rules and regulations policy defining (*i*) level of investment to be made both by Utility and the consumer to hook up utility's electric system to consumer's electric system, (*ii*) method and collection of billing, (*iii*) customer/security deposit, (*iv*) manner of dealing with theft of electricity, and (*v*) service/miscellaneous charges with break up by different categories shall be submitted alongside the next tariff petition of the utity.

(*ii*) *Energy Audit* :

The Board is directed to furnish a report on energy audit already carried out and also submit a programme for provision of cent per cent metering from the sub-stations to 11 kV deeds and distribution transformers for total enegry audit, together with investment needed and its phasing. Programme for cent per cent metering of all consumers above 20 kW connected load through electronic metering together with the investment needed and the phasing thereof shall also be submitted by the Board with the next tariff petition.

(*iii*) *Distribution Planning* :

Policy for distribution planning and management with a view to improve the quality of service, improve the revenue and reduce the T&D losses must be submitted along with the next tariff petition.

(*iv*) *Demand Side Management* :

A plan for demand-side management to achieve optimal supply/demand equylibrium shall also be submitted with the next tariff petition.

**Materials Management :**

7.28 Lest the shortage of materials is cited as a predominant reason for non-compliance of the approved standards and benchmarks, the Commission hereby directs the Board to ensure that the materials managements policy and practices of the Board including calender of various actions, approvals, tendering, purchase order, delivery schedule and patments etc. are streamlined so as to provide necessary inputs of right quality at the right time to facilitate faithful implementation and compliance of the approved standards and benchmarks by the field officers Compliance report on this direction shall be submitted by the Board latest by December 31,2001.

**Sales Manual :**

7.29 The Commission has issued a number of directives and orders as part of this tariff order. The Commission directs the Board to undertake the corresponding changes in the Sales Manualy by December 31,2001.

**Voltage wise data :**

7.29 The Board is directed to provide detailed information on voltage wise assets, costs and sales with the next tariff petition so that the extent of cross subsidy can be measured precisely in the future.

**Complaint handling mechanism :**

7.30 The Board is directed to propose and submit to the Commission by December 31,2001, the complaint handling mechanism and procedure for establishing the violations beyond a reasonable doubt. The Commission shall approve the same within 30 days and the approved Standards and Benchmarks shall then come into force *w. e. f.* February 1, 2002.

**Monitoring of the Progress :**

7.31 The Commission would monitor the progress in complying with these directions. The Commission accordingly directs the Board to furnish the information on milestones required in column 3 of the Annexure (7.1) by December 31, 2001, Subsequent reports should be sent every quarter, providing the information required in columns 4,5,6, and 7. The first report should be submitted by January 15,2002.

7.32 In the directions where the Board is to comply by the next tariff petition and the same is not filed within next six months, the directions should be complied within the next six months.

ANNEXURE 7.1

## QUARTERLY MONITORING REPORT

| Sl. No. | Directives | Compliance date | Milestone to be achieved | Responsibility Centre | Current Status | Deviation | Reasons for deviations |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. | **Unbundled Cost :** | | | | | | |
| | Build a credible and accurate data base with unboundled costs and expenditure between the three businesses of generation, transmission and distribution as well between the various customer classes to enable the stakeholders to focus on these costs and expenses and have rational basis for the determination of tariff under performance based regime with some regulatory certainty. | Next tariff petition | March 31,2002:—<br>June 30,2002:—<br>September 30,2002:— | | | | |
| 2. | **T/D loss Study :** | | | | | | |
| | Submit a plan for reducing losses, both technical and non-techntcal together with relevant load flow studies and details of investment requirement to achieve the planned reduction. | March 31,2002 | | | | | |
| 3. | **Employee Cost :** | | | | | | |
| | Submit plans, both short-term and long-term, for rationalization of existing manpower for improvements in efficiency through scientific engineering | March 31,2002 | | | | | |

| | |
|---|---|
| resources management, improving and updating the organization strategies & systems and skills of human resources for increased productivity | |
| Submit full details of employees retiring in the next one year with complete breakup of their pay. | Next tariff petiton |
| **4. Demand Forecast:** | |
| Submit a plan for undertaking load research and demand forcast to detemine the load profile of consumers supplied under each tariff. | September 30, 2003 |
| **5. Financial Restructuring:** | |
| A study on total financial management of the board so as to determine an optimal capital structure, including key fincial parameters. | September 30, 2002 |
| **6. Encourage Competitive scenario:** | |
| Submit a plan for introducing competitive conditions between the various circles in the generation, transmission and distribution departments of the utility together with implementation programme for the same, with the approval of the Commission. | December 31, 2001 |
| **7. Consumer Participation and quality of Supply:** | |
| Develop and implement a comprehensive public interaction programme through Consultative | March, 31, 2002 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| | Committies, preparation, publication and advertisement of material helpful to various consumer interest groups and general public on various activities of the Utitlity, dispute settlement mechanism, accidents, rights, and obligation of the consumers etc. | | | | | | |
| 8. | **Unproductive Assets:** | | | | | | |
| | Submisston of an affidavit, stating that the Board does not have any unproductive un-remunerative and idle assets. | October 24,2001 | | | | | |
| 9. | **Power Sector Reforms:** | | | | | | |
| | Follow the guidelines and the programme for implementation of the reform process as envisaged in the MoU signed between GoHP and GoI and update the Commission every quater on the progress made in this direction through a report. | January 15,2002 (submission of first report). | | | | | |
| 10. | **Information on Fixed Assets and Capital work in progress:** | | | | | | |
| | Preparation of Fixed Assets Regtster | March 31,2002 | | | | | |
| | Udertake an investigation of amount reflected in the capital works progress account and submit the same to the Commission. | Merch 31,2002 | | | | | |
| | Conduct physical verification of assets by an independent agency and submit a report on the Fixed Assetes Register. | September 30,2002 | | | | | |

| | |
|---|---|
| **11. Metering :** | |
| Replacement of defective and deadstop meters as on December 31,2001 to be done by March 31,2002 and there on clear the backlog on quarterly basis. | March 31,2002 |
| **12. Billing and collection efficiency :** | |
| Review the process of timely meter reading, billing and collection of revenue for streamling the process; explore the possibilities of outsourcing these tasks and for introducing prepaid metering in a phased manner. A report on the progress made on this should be submitted to the Commission. | Next tariff petition |
| **13. New Connection :** | |
| Examine the procedure for sanctioning new connections and come out with a proposal for reducing the delay in new connection installation. | March 31,2002 |
| **14. MC pricing :** | |
| Study to assess the Marginal cost study. | Next tariff petition |
| **15. Compliance with the Guidelines issued by the Commission :** | |
| The following reports complete and comprehensive in all respects and as required in the 'Guidlines for revenue and tariff filing' should be submitted<br>(*i*) Service Rules and Regulations policy.<br>(*ii*) Energy Audit<br>(*iii*) Distribution Planning<br>(*iv*) Demand side management | Next tariff petition |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| 16. | **Sales manual** : | | | | | | |
| | The changes in the Sales manual corresponding to the directive and orders issued by the Commission should be undertaken by the Board. | December 31,2001 | | | | | |
| 17. | **Malana Project** : | | | | | | |
| | Comparison of the capital cost of the Malana plant with the capital cost of the HPSEB's plants. | March 31,2002 | | | | | |
| 18. | **Material Management** : | | | | | | |
| | Compliance report to ensure the streamling of the Board's materials management policy and practices. | December 31,2001 | | | | | |
| 19. | **Wholesale supply of power** : | | | | | | |
| | An appropriate proposal for determination of tariff for wholesale supply of power from the Government to the Board. | At the earliest | | | | | |
| 20. | **Voltage wise data** : | | | | | | |
| | The Board to provide detailed information on voltage wise assets, costs and sales so that the extent of cross subsidy can be measured precisely in the future. | Next tariff petition | | | | | |
| 21. | **Complaint handling mechanism** : | | | | | | |
| | Propose and submit the complaint handling mechanism and procedure for establishing the violation of the approved Standards and Benchmarks beyond a reasonable doubt. | December 31,2001 | | | | | |

## CONCLUSION

The Commission has carefully considered the petition No. 1/2001, dated April 30,2001, titled "Filing of Proposed Distribution and Retail Supply Tariff" and the petition No. 2/2001, dated August 13, 2001, titled "Filing of proposed Transmission and Bulk Supply Tariff", filed by the Himachal Pradesh State Electricity Board. The Commission has not accepted the petitioner's estimates of the Revenue Requirement and income and has also not approved the tariffs so proposed by the petitioner. The Commission has made alternative estimates of the Revenue Requirement based on efficent and reasonable cost and income. The Commission as also revised the tariff structure on the principles laid down in the ERG Act, which have been explained in detail in the earlier part of this order.

The Commission in exercise of the powers vested in it under section 22 (1) of the Electricity Regulatory Commission Act, 1998, orders that the approved tariff together with the Schedule of general and service charges shall come into force with effect from November 1, 2001. The Commission also directs that the Standards and Benchmarks alongwith the token compensation fixed in this order be implemented with effect from Febuary 1,2002. The Commission further directs the petitioner to comply with the various directives given in this order.

It is so ordered.

S. S. GUPTA,
*Chairman.*

*Shimla* ;
*Dated October* 29, 2001.

नियन्त्रक, मुद्रण तथा लेखन सामग्री, हिमाचल प्रदेश, शिमला-5 द्वारा मुद्रित तथा प्रकाशित ।